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When feedback goes wrong: An examination of factors that mitigate unfavorable responses to negative feedback

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

ABSTRACT

This first chapter provides an introduction to the empirical studies of this dissertation. I first review research on feedback interventions, the possible responses to feedback, and situational factors that moderate the relationship between feedback and its outcomes. Next, I develop a feedback model on the basis of the traditional model of Ilgen, Fisher, and Taylor (1979) that will be used to give a research-based overview of the studies conducted in this dissertation. Based on this model, three overarching research objectives are identified that will guide the empirical studies presented in the following chapters of this doctoral dissertation.

INTRODUCTION

At the 2012 SIOP Conference in San Diego, a panel of eight performance management practitioners was gathered to speak to an audience of researchers about specific performance management practice-related issues. The session, "Calling All Performance Management Researchers: You Need to Hear this!" drew a full house of interested researchers and practitioners generating fruitful and meaningful discussion about where performance management research needs to go next in order to answer the most pressing questions faced by today's practitioners. In this session it was stated that, despite 30 years of research, the gap between science and practice in performance management has never been bigger and does not seem to have been addressed in the last decades.

Although today almost every large organization uses some type of performance appraisal method, Bernardin, Magan, Kane and Villanova (1998) state that performance appraisal remains the black sheep of human resource management. These authors based their conclusions on a survey of the Society of Human Resource Management that showed that over 90% of all performance appraisal methods are unsuccessful. Indeed, there seems to be quite some dissatisfaction about performance appraisal. Lawler (1994) aptly summarized this discontentment: "*The problem – and it is well documented – is that most performance appraisal systems do not motivate individuals nor guide their development effectively*" (p. 106). This dissatisfaction even goes so far that some refuse to use the word 'performance appraisal' and have replaced it by 'performance management' (Banks & May, 1999). Given the continued frustration over performance appraisal, some practitioners and researchers have even suggested abandoning it altogether and argued for the "performance appraisal free company" (e.g., Coens & Jenkins, 2000).

Because of this problem, in recent years there have been calls to conduct more research about the efforts organizations can undertake to turn performance appraisal into a more effective feedback intervention (e.g., Levy & Williams, 2004). However, in order to improve the effectiveness of feedback interventions, it is crucial to understand how people react to performance appraisals and to determine the factors that may influence these reactions. In this regard, it seems

especially important to improve our understanding of those situational factors that organizations can actively influence in order to improve the effectiveness of feedback interventions. Therefore, three broad research objectives are proposed that will be addressed throughout the different studies conducted in this doctoral dissertation. A first research objective is to investigate whether feedback sign affects short-term emotions and cognitive reactions in similar ways across different feedback contexts. As a second research objective, where possible I will examine whether emotions may act as mediating mechanisms in the relation between feedback and subsequent attitudes, intentions and behavior. A third and final research objective concerns the examination of situational variables that are easily manageable in practice and that may impact on the relation between feedback and feedback reactions, and hence that can facilitate favorable reactions to feedback. In order to examine these research objectives, in this doctoral dissertation I will present six studies across five empirical chapters.

In the following paragraphs, I offer a broad framework to guide readers when going through this doctoral dissertation. However, it will become evident that every empirical study in this dissertation is conducted in its own right and is designed to answer specific research questions apart from the three broad research objectives discussed in this introduction. In this first chapter, I provide an introduction and selected literature review of research on feedback interventions, feedback reactions and possible moderators. Based on this literature review, the research objectives guiding the present dissertation are discussed throughout and at the end of this chapter. In addition, an outline of the empirical studies in this dissertation is presented and their relation to the research objectives is discussed.

FEEDBACK

The most widespread definition of feedback is the one developed by Kluger and DeNisi (1996) who describe a ‘feedback intervention’ as: “*actions taken by (an) external agent (s) to provide information regarding some aspect(s) of one's task performance”* (p. 255). Providing people with feedback has become one of the most widely accepted and applied psychological interventions. Across a wide range of settings, feedback is believed to direct,

motivate, and reward behavior. The assumption that giving feedback is beneficial for individual and group performance has also been widely supported in organizations (e.g., Becker & Klimoski, 1989; Larson, 1989; Zimmerman, Mount, & Goff, 2008).

Research examining the effects of feedback on performance has been conducted since the early 1900s (Kluger & DeNisi, 1996, 1998). In the beginning of the previous century, several experiments were conducted to investigate the effect of feedback interventions (or 'knowledge of results', as feedback interventions were called then) on performance improvement. With his behavioristic law of effect, Thorndike (1913, 1927) was the first to make an attempt at describing and investigating the effect of feedback on the behavior displayed by individuals. Based on this theory, a positive feedback intervention was equated with reinforcement and a negative feedback intervention with punishment. Reinforcement and punishment facilitate learning and hence performance. Both a positive and a negative feedback intervention should improve performance because one reinforces the correct behavior and the other punishes the incorrect behavior. Whereas several reports were empirically consistent with these predictions (e.g., Thorndike, 1927), the law of effect was never sufficiently detailed to account for the inconsistent findings. For example, Thorndike (1913) noted that grades (a feedback intervention) can impede learning. However, the reasons he proposed for this assumption could either not be explained by the law of effect (i.c., relativity), or were inconsistent with data (i.c., level of specificity). Furthermore, empirical results are inconsistent with the law of effect in many other ways as well (for reviews, see Adams, 1978; Annett, 1969). Yet, despite all its logical (e.g., Powers, 1973) and empirical shortcomings, it had a substantial influence on feedback researchers. Therefore, the law of effect has been blamed by some for hindering feedback research (e.g., Adams's review, 1978; Locke & Latham, 1990). In summary, the law of effect generated sizable empirical literature (cf. the review and criticism by Annett, 1969) because it had the advantage of parsimony, but it was too broad to explain the empirical complexities associated with feedback interventions (Kluger & DeNisi, 1996).

Approximately 25 years after Thorndike's law of effect, Ammons (1956) published a review in which he summarized the literature concerning the effects of knowledge of results (or feedback interventions). His two most important conclusions were (1) that knowledge of results increases learning, and (2) that knowledge of results increases motivation. Despite the use of unorthodox research methodologies (e.g., much of the evidence in support of the second conclusion "has been collected informally" and is "inferred from other findings", p. 283) and disregard for contradictory evidence for several of the generalizations and conclusions made in the review, the conclusions of Ammons had a considerable impact on the psychological and feedback literature of its time (as cited in Ashford & Cummings, 1983).

After this review, it took another quarter of a century until several authors began to realize that there is more to the relationship between feedback and performance than previously thought (e.g., Ilgen et al., 1979; Salmoni, Schmidt, & Walter, 1984). Ilgen et al. (1979) were among the first to note that relating feedback directly to behavior was very confusing and that results were contradictory and seldom straightforward. Years later, Kluger and DeNisi (1996) conducted a meta-analysis on the influence of feedback interventions on performance, based on over 3.000 papers and examining 470 effect sizes. Here, they found that 32% of all effects reported in these studies were negative. Based on these results, Kluger and DeNisi (1996) concluded that "*feedback interventions improve performance on average, but that over 1/3 of the feedback interventions decreased performance"* (p. 1). In their reviews, these and other authors (e.g., Fedor, 1991; Ilgen et al., 1979; Kluger & DeNisi, 1996) argued that the effects of feedback interventions on performance could only be understood if research gained more insight in how feedback recipients respond to feedback.

FEEDBACK MODEL BY ILGEN ET AL. (1979)

One of the first feedback models that addressed the feedback process, was the model developed by Ilgen et al. (1979). In this model, performance feedback and the possible responses to it are described in a systematic and elaborate way. More specifically, responses to feedback were depicted as a causal chain of reactions, with immediate emotions and cognitive responses as intermediate mechanisms leading to attitudes, intentions, and behavioral outcomes. Although this model was developed over 30 years ago, it has served as a basis for many other models in the feedback (e.g., Fedor, 1991; Taylor, Fisher, & Ilgen, 1984) and other literatures (e.g., aggression literature, O'Leary-Kelly, 1998), and remains relevant today (e.g., Li, Harris, Boswell, & Xie, 2011; Linderbaum & Levy, 2010; Sitzmann & Johnson, 2012). Indeed, when looking at the five most recent years (2007-2012), the study by Ilgen et al. (1979) still received over 100 citations, showing the importance of the model to this day.

In this dissertation, I use the model put forth by Ilgen et al. (1979; Figure 1) as a starting point for developing my own feedback model, for two specific reasons. First, Ilgen et al.'s (1979) model represents the foundation of all subsequent process feedback models, and it is the model used most frequently by researchers to generate hypotheses regarding the effects of feedback (e.g., Fedor, 1991; O'Leary-Kelly, & Newman, 2003). Moreover, this model is especially relevant for this dissertation as it is based on research showing that the receipt of feedback does not always lead to the desired change in employee behavior. Second, many other feedback models (e.g., Kluger & DeNisi, 1996) that have been developed over the years do not take into account the sequential chain that was proposed by Ilgen et al. (1979), and that will also be tested in this doctoral dissertation.

In the following sections, I will describe the basic propositions of this model by providing a brief overview of the current research in the field of feedback reactions, and by focusing on the specific variables that are directly examined across the empirical studies in this dissertation. I will also present an adaptation of this model that will be used as a guiding framework for the studies conducted in this dissertation (see Figure 2). As stated earlier, the feedback model by Ilgen et al. (1979) is relatively straightforward. Essentially, the model

suggests that individuals who receive feedback information will assess this information in terms of its source (e.g., the credibility of the source) and its message (e.g., the sign of the message, the accuracy of the message). These source and message characteristics then affect the sense making or cognitive processing of the feedback recipient. The model further suggests that recipients' cognitive processing will influence their attitudinal reactions and their development of behavioral intentions. However, the characteristics of the feedback message are expected to interact with situational factors (constraints, facilitators) in predicting the individual's actual emotions, attitudes and behavior in response to the feedback information (Fedor, 1991; Ilgen et al., 1979; O'Leary-Kelly, 1998). These constructs, which capture the basic processes of existing feedback models, are depicted in Figure 1.

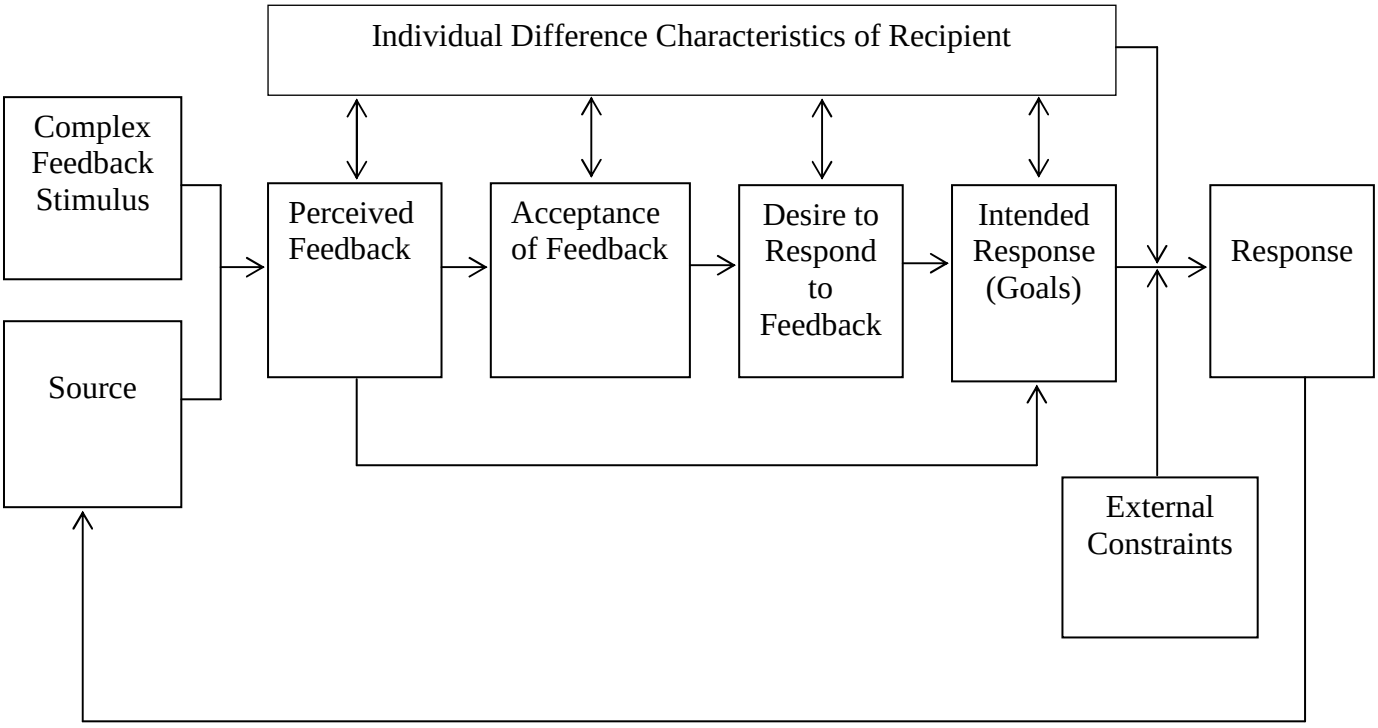

Figure 1. *The Feedback Process Model (Ilgen et al., 1979)*

FEEDBACK SIGN

As was described by Van Dijk and Kluger (2004), when people receive negative feedback (and hence, 'fail'), they sometimes "give up" and sometimes they "try harder" or "gird their loins". In a parallel vein, when people receive positive feedback (and hence, 'succeed'), they sometimes "bask in their glory" or "sit on their laurels" and sometimes they "double their efforts". Both of these feedback sign effects are found in empirical literature.

One stream of research, based primarily on control theory (e.g., Carver & Scheier, 1981), suggests that failure motivates more than success does. This theory is based on the assumption that people are inclined to self-regulate their behavior in order to reach a certain 'reference value'. According to control theory, when a person receives positive feedback, (s)he will not be motivated to change his/her actions, as no discrepancy between the desired and actual behavior was detected. However, when a person receives negative feedback, this uncovers a discrepancy between the present state and reference value, leading to cognitive and/or behavioral output that will help the individual reduce the discrepancies from the standard (Carver & Scheier, 1982). Such feedback effects are found both in the laboratory (e.g., Campion & Lord, 1982; Podsakoff & Farh, 1989) and in the field (e.g., Johnson & Ferstl, 1999; Walker & Smither, 1999).

Yet, another stream of research based on aspiration levels (Lewin, Dembo, Festinger, & Sears, 1944) and on self-efficacy notions (Bandura, 1986), suggests that people try harder and raise their goals after success (e.g., Lewin et al., 1944; Phillips, Hollenbeck, & Ilgen, 1996). According to the assumptions of self-efficacy theory, when people receive positive feedback, their self-efficacy will be increased, leading them to set higher performance goals for themselves. In turn, these higher personal goals will increase performance, again leading to higher self-efficacy levels (Bandura & Jourden, 1991). However, the opposite happens when one receives negative feedback: this will lead to a decrease in the individual's self-efficacy, which will lead the person to set lower initial goals. These lower goals are then less likely to lead to high performance or higher future perceptions of self-efficacy.

Although these theoretical research streams predict differential effects of positive and negative feedback, there is no doubt that the sign of the feedback message is the factor deemed most important in determining recipients' reactions to feedback (e.g., Anseel & Lievens, 2006). When looking at empirical research, it has been shown that in general, people react more favorably to positive feedback than they do to negative feedback. Audia and Locke (2003) for instance investigated what factors are responsible for preventing people from benefiting from negative feedback. They also argued that, although positive and negative feedback affects people quite differently, these differences are often denied in theoretical feedback models (e.g., Fedor, 1991; Ilgen et al., 1979; Larson, 1989; Morrison & Bies, 1991), and consequently also in practice. In addition, although it is important to know the effects of feedback sign on feedback reactions, this knowledge offers little opportunities for organizations to influence these feedback reactions. Knowing that negative feedback may provoke unfavorable reactions will not change the inevitable fact that managers sometimes need provide negative feedback to their subordinates. More recently, O'Leary-Kelly and Newman (2003) also criticized the lack of studies investigating under what circumstances feedback may lead to unfavorable and even dysfunctional consequences. Hence, although much is known about the effects of feedback sign on feedback reactions, until now the knowledge about the potential situational moderators in this relationship remains scarce. This seems strange, as identifying the situational factors that are manageable by the organization and may influence the relation between feedback and feedback reactions, is crucial for practitioners. However, before examining these situational moderators, it is important to establish that reactions to feedback are similar across different contexts. A more thorough knowledge about the generalizability of feedback reactions will enable practitioners to develop strategies for improving feedback reactions that can be adopted across contexts.

Therefore, in this dissertation I will first examine whether feedback sign affects short-term emotions and cognitive reactions in similar ways across five different feedback contexts. Then, I will investigate whether emotions may act as mediating mechanisms in determining distal outcomes to feedback such as attitudes, intentions and behaviors. Finally, I will examine three situational

variables I believe are easily manageable by organizations and that may facilitate positive reactions to feedback.

PROXIMAL REACTIONS TO FEEDBACK

A large body of evidence suggests that one of the key factors to focus on when designing feedback interventions is how feedback recipients initially react to the feedback provided (e.g., Ilgen et al., 1979; Ryan, Brutus, Greguras, & Hakel, 2000). Research has consistently shown that performance feedback elicits cognitive (e.g., Ilgen et al., 1979) as well as emotional reactions (e.g., Belschak & den Hartog, 2009). However, although many studies have looked at immediate reactions to feedback, findings are somewhat dispersed in different contexts, making it difficult to assess whether similar results are obtained across different settings.

Swann and Schroeder (1995) proposed that independent desires for positivity shape the sequence of cognitive operations people perform on self-relevant evaluations. According to these authors, in a first phase the mere identification of evaluative information triggers an almost automatic tendency to embrace favorable evaluations and eschew unfavorable ones. Then, people proceed to the second phase, wherein they evaluate the verisimilitude of the evaluation by comparing it with a series of representations of self, beginning with their actual selves. If their actual self-views are uncertain, or if their motivation to continue processing is high, people may go on to refer to various possible selves in choosing how to behave. Finally, if sufficient cognitive resources and motivation are still available, people will engage in a third phase, consisting of a cost-benefit analysis of the outputs of the earlier phases. This analysis will then lead this person to act.

Hence, according to Swann and Schroeder (1995), when people receive positive or negative feedback, they begin by categorizing it as favorable or unfavorable. Although this was not the focus of their study, it is likely that this intuitive and reflex-like categorizing is an emotional reaction that immediately follows after a feedback message. Indeed, the broader literature on emotions suggests that providing positive feedback will generally lead to immediate positive emotions, such as pride and happiness, whereas negative feedback will

generally result in negative emotions, such as disappointment or anger (e.g., Lazarus, 1991). On the basis of the theory by Swann and Schroeder (1995), these emotional reactions will then be followed by a cognitive response that assesses the evaluative information, and will lead the individual to decide whether the evaluation is in accordance with the actual performance. Finally, the actual evaluation will be compared to the desired evaluation, leading to certain attitudes, intentions and behaviors by the evaluated individual.

This is also in line with the sequential chain proposed by Ilgen et al. (1979). According to their model, when an individual receives feedback, his/her perceptions of the feedback message will guide cognitive reactions such as feedback acceptance. These cognitive reactions will then lead to the desire to respond, the intention to respond, and ultimately to the response itself. Hence, in this doctoral dissertation, based on the sequential phases by Swann and Schroeder (1995) and Ilgen et al. (1979), a first research objective is to examine proximal reactions to feedback. More specifically, I will look at emotions and cognitive reactions to feedback, and examine whether these reactions are similar and robust across different contexts. Across six studies, I will examine several immediate emotional (i.c., happiness, unhappiness, positive and negative emotions) and cognitive reactions (i.c., feedback acceptance and utility) following feedback.

DISTAL REACTIONS TO FEEDBACK

According to feedback models (e.g., Fedor, 1991; Ilgen et al., 1979) feedback recipients' primary reactions impel their subsequent behavioral intentions. However, the question of whether attitudes, intentions and behaviors are indeed affected and maybe even caused by emotions has not yet been resolved (e.g., O'Leary-Kelly & Newman, 2003). In this dissertation, we will refer to those feedback responses that are not an immediate, affect-like response to feedback, as distal reactions (although they may also be relatively close in time). Affective events theory addresses how affective reactions are elicited by work events (such as performance feedback), and how, in turn, these affective experiences directly or indirectly influence work behaviors (Belschak & den Hartog, 2009; Weiss & Cropanzano, 1996). This theory refers to affective

experiences of different origin, covering discrete emotions as reactions to some specific cause or event (e.g., feelings of pride as a reaction to successful personal achievements), more generalized affective states (positive versus negative affect), and moods (relatively mild, enduring emotional states that are not linked to a specific cause). These affective experiences in turn influence certain attitudes, intentions and behaviors.

Until now, most of the extant research on feedback has focused on consequences of feedback on tasks that the feedback referred to (e.g., Illies & Judge, 2005) or tasks similar to the feedback-related task (e.g., Saavedra & Earley, 1991). With this dissertation I add to the literature by not only investigating the impact of task feedback on emotions, but also on broader, not directly feedback-related reactions other than task performance. Hence, a second step in this doctoral dissertation is to examine whether these primary emotional reactions act as a mechanism that will lead to attitudes (i.c., affective organizational commitment), intentions (i.c., intentions to display interpersonal citizenship and interpersonal counterproductive behavior, recommendation intentions), and behavior (i.c., recommendation behavior, involvement in skill development activities). In order to test the robustness of our results, this second research objective will be examined in three different contexts throughout this dissertation (i.c., (1) the context of the auditions for '*Idool*', (2) a management education context and (3) the context of a health care organization).

SITUATIONAL MODERATORS

Throughout the previous paragraphs I explained the need to examine the basic relation between feedback sign and emotions as proximal feedback reactions, and between feedback sign and attitudes, intentions and behaviors as distal feedback reactions. However, although knowing how people react to feedback is important, this knowledge does not offer many opportunities for organizations to actively manage these reactions. It may be for instance interesting to know that certain individual difference variables (e.g., core self-evaluations, emotional stability, goal orientations) are important in determining people's reactions to feedback, but this knowledge is hardly transferable into specific guidelines for feedback interventions that can be used by organizations.

In order to find ways to influence the relation between feedback and feedback reactions, it is crucial to determine those situational conditions under which unfavorable feedback reactions diminish, and favorable feedback reactions increase.

Therefore, as a third objective of this doctoral dissertation I will examine three situational factors that I believe will influence the relation between feedback and feedback reactions. Although factors other than those examined in this dissertation may play a role, I focus my attention on those situational variables that I believe are easily manageable by organizations, namely interactional justice, procedural justice and relationship quality. As stated before, despite all the theoretical research, there is still a gap between research and practice in performance management. By investigating situational moderators, my aim is to provide some insight into those factors that are manageable by organizations and that may influence feedback reactions. Importantly, as all three research objectives (i.c., examining proximal and distal reactions to feedback, and investigating potential moderators in this relation) will be examined in six studies conducted in five different research contexts, I will be able to test for the robustness of these feedback effects. In what follows, I will briefly describe the three situational moderators that will be looked at in this dissertation.

First, I believe that the way an individual is treated by his/her supervisor can be easily controlled by organizations. Social psychologists have proposed that this fairness of interpersonal treatment, commonly labeled interactional justice (e.g., Colquitt, Conlon, Wesson, Porter, & Ng, 2001) is a key issue for understanding reactions in social situations (e.g., Bies & Moag, 1986). One reason for this may be that interactional justice concerns become particularly salient in situations in which aspects of the self are threatened (e.g., De Cremer & Tyler, 2005), which is often the case when receiving (negative) feedback. Moreover, situations that posit a potential threat for the self are most likely to direct attention to fairness issues (van den Bos, Miedena, Vermunt, & Zwenk, 2011). Hence, when people's self-concepts are threatened by negative feedback, they will pay more attention to the way in which they are treated during this situation. It is important to note that interactional justice is said to entail

informational and interpersonal justice, referring to the provision of explanations for decisions and the interpersonal treatment during the decision process respectively (Bies & Moag, 1986). In this dissertation, I aim to look at both factors as moderators in the relationship between feedback and feedback reactions across different contexts.

A second situational variable that may be highly controllable by an organization refers to the fairness of procedures. Procedural justice refers to the fairness perception of the means by which outcomes are allocated, but not necessarily to the outcomes themselves (Cropanzano, Bowen, & Gilliland, 2007). Studies have shown that an important requirement for favorable reactions following feedback is that the procedures used during a feedback situation are perceived to be fair and just (Jawahar, 2007; McDowall & Fletcher, 2004). Moreover, when people report that they have insight into the procedures used, favorable reactions may also be expected (Jawahar, 2007; Leung, Su, & Morris, 2001). In other words, knowledge and perceptions about the procedures used to allocate outcomes may have an important influence on and can possibly even determine how people react to feedback. In this dissertation, in order to examine the moderating effect of procedural justice on feedback reactions, I will actively manipulate the amount of procedural information in college graduates' feedback reports and look at the effects on emotions and behavior.

A third and final situational factor that may be to some extent manageable by management and organization, is the quality of the relationship between an employee and his/her supervisor or between two or more colleagues. Although research suggests that a good relationship between employees and their supervisor is crucial for favorable feedback reactions (e.g., Snyder, Williams, & Cashman, 1984), this has not been examined across contexts and with different operationalizations of relationship quality. In this dissertation, I will examine the moderating effect of relationship quality across three organizational contexts. Moreover, I will not only examine the quality of the relationship between supervisor and employee, but also between two or more co-workers.

Overview of Operationalizations and Contexts

In this doctoral dissertation, different operationalizations of our variables will be used to address the proposed research objectives. First, although the independent variable in all studies will be feedback sign, this is operationalized in four different ways throughout this dissertation. More specifically, I will look at the feedback score in a feedback report, a 'pass' or 'fail' decision in the context of '*Idool*', the actual feedback message as communicated by expert judges, and employee recognition in the form of praise or criticism. Second, our situational moderators are also operationalized in different ways: first, interpersonal treatment, interactional justice perceptions, and information specificity are used as a proxy of interactional justice. Next, procedural information is used to measure procedural justice. Finally, I will use leader-member exchange, supervisory trust, and relationship quality as operationalizations of relationship quality. Third, I will look at several proximal outcomes of feedback, namely positive and negative affect, (un)happiness, feedback utility and acceptance and satisfaction with feedback. Fourth, in this dissertation several distal feedback outcomes will be examined, such as recommendation intentions and behavior, intentions to engage in interpersonal counterproductive and citizenship behaviors, affective organizational commitment and involvement in skill development intentions. Finally, our three broad research objectives will be examined in five different contexts: three organizational contexts (a health care organization, a technology company, and a call centre), the context of auditions for '*Idool*', and a management education context. An overview of all operationalizations used in the different studies and of the contexts in which the studies are conducted can be found in Table 1. Table 2 gives an overview of the chapters and research objectives.

Table 1

Overview of the Chapters and Variables Used in Each Study

Chapter	Feedback stimulus	Moderator	Mediator / Outcome	Study context
2	- Feedback decision	- Interactional justice perceptions	- Predicted and actual happiness	- Idool[a]
3	- Procedural fairness of performance appraisal feedback - Feedback sign	- Leader-member exchange - Supervisory trust	- Feedback utility - Feedback acceptance	- Technology firm (Study 1) - Call center (Study 2)
4	- Feedback score	- Procedural information - Information specificity	- Negative and positive emotions - Involvement in skill development activities	- Management education context
5	- Actual feedback message - Feedback decision	- Actual interpersonal treatment	- Satisfaction with feedback - Recommendation intentions - Recommendation behavior	- Idool[a]
6	- Employee recognition aimed at co-worker	- Relationship quality	- Negative and positive emotions - AOC[b] - CWB-I[c] - OCB-I[d]	- Health care organization

Note: [a]Although both studies were conducted in the same context, only the variable 'feedback decision' was used in both studies (as an independent variable in Chapter 2, as a control variable in Chapter 5). Further, both studies were used to examine different research objectives.

AOC[b] = Affective Organizational Commitment; CWB-I[c] = Interpersonal Counterproductive Behavior; OCB-I[d] = Interpersonal Citizenship Behavior

Table 2

Overview of the Chapters and the Research Objectives

	Chapters				
	2	3	4	5	6
Research Objective 1: Reactions across contexts	x	x	x	x	x
Research Objective 2: Emotions as mediating mechanisms			x	x	x
Research Objective 3: Situational moderators	x	x	x	x	x

THE PRESENT DISSERTATION

In the current dissertation, I will present several studies, which aim to investigate the research objectives that were proposed in the previously described research agenda. More specifically, by using an adaptation of the feedback model (Ilgen et al., 1979) shown in Figure 2, this dissertation aims to examine three broad research objectives. First, I will examine whether positive/negative feedback affects emotions, attitudes, intentions and behavior in similar ways across feedback contexts. A second research objective is to investigate, where possible, whether emotions may act as a mediating mechanism in the relationship between feedback and attitudes, intentions and behavior. Third and finally, I will also examine situational moderators that are manageable by organizations, and hence can operate as facilitators in the relationship between feedback and feedback reactions. A better understanding of the mitigating factors in this relationship is not only desirable from a theoretical viewpoint, but can also help organizations in practice to optimize their feedback processes in order to avoid possible dysfunctional consequences for the organization and the provider of feedback. For instance, if we find support for the assumption that a fair interpersonal treatment improves people's reactions to negative feedback, this could encourage organizations to develop specific 'treatment guidelines' for supervisors when providing negative feedback to employees.

In order to investigate the research objectives described here, I will use diverse methodological approaches. More specifically, in this dissertation I will conduct a scenario-study (Chapter 6), two cross-sectional studies (Chapter 3)

and two long-term studies (Chapters 4 and 5), and use quantitative (Chapters 2, 3, 4, 5 and 6) and qualitative (Chapters 4 and 5) data to examine these objectives.

In Figure 2, the overarching structure of this dissertation is given. I developed this model based on the model by Ilgen et al. (1979). As such, Figure 2 represents a working model for this dissertation wherein only the specific variables that are directly examined across the empirical studies are included. In each empirical study, a closer look will be taken at the relationship between specific elements of this model. Thus, the working model in Figure 2 does not reflect a comprehensive model to be tested, but is meant to illustrate how the various studies in this dissertation are interconnected. With this purpose, the model will be retaken before each chapter, highlighting the specific elements under study.

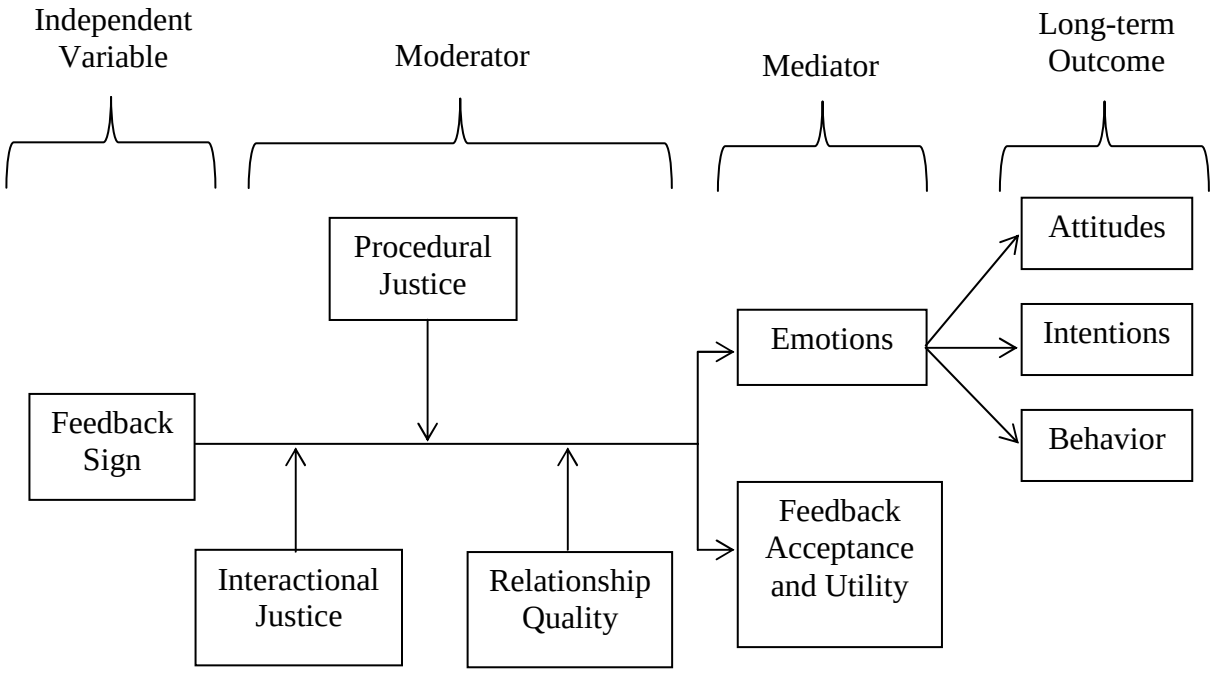

Figure 2. *A Working Model Linking the Variables Studied in this Dissertation*

In the first empirical chapter (Chapter 2) we will examine individuals' expectations regarding their own reactions after a feedback event and how these are moderated by interactional justice perceptions. In this study, we introduce and draw upon the fairly recent affective forecasting literature to examine the extent to which individuals may predict their own emotions and reactions after a feedback event accurately. The main assumption in affective forecasting research is that people are not good at predicting their emotions correctly (for reviews, see Gilbert, Driver-Linn, & Wilson, 2002; Wilson & Gilbert, 2003). Studies have shown that people expect to feel worse after negative events and better after positive events than they actually end up feeling (e.g., Gilbert, Morewedge, Risen, & Wilson, 2004). This forecasting error can be detrimental because it may prompt individuals to pursue the wrong goals (Greitemeyer, 2009), or make the wrong decisions about important life choices (Buehler & McFarland, 2001). Because of the possible detrimental effects of this forecasting error, it seems crucial to examine the factors that may influence it in order to find ways to manage this error. Therefore, in this study, we will examine whether candidates in the television show *'Idool'* are successful in predicting how they will feel immediately after a negative feedback decision and a positive feedback decision. Further, we will investigate whether an individual's perceptions of interactional justice may influence this forecasting error. In addition, we will look at whether the importance of candidates' self-views intensify these interactional justice effects. Hence, in this chapter we will look at basic emotions (i.c., actual (un)happiness) as outcomes of a certain feedback event, and the moderating role of interactional justice.

Whereas Chapter 2 will look at the influence of interactional justice on basic emotions, in Chapter 3 we will examine how the perception of procedural justice in a performance appraisal context connects to two other primary cognitive feedback outcomes, namely feedback acceptance and feedback utility. Further, in this study we will look into the moderating *and* mediating effects of relationship quality in this relationship. Research has shown that two principles are of key importance for enhancing feedback reactions in the context of performance appraisal. On the one hand it seems crucial to develop a good relationship with the provider of the feedback (in most cases the supervisor)

(e.g., Snyder et al., 1984). On the other hand, being treated in a fair manner is equally important (e.g., Liden, Sparrowe, & Wayne, 1997). Although it is known that both factors are important in determining reactions to feedback, less is known about the specific interplay between both factors in determining feedback reactions. The current two studies will try to shed a new light on this matter by examining moderating *and* mediating hypotheses with regard to these questions.

The third empirical chapter (Chapter 4) presents a quasi-experimental study that takes a closer look at how certain characteristics of the feedback message may influence emotional reactions in the first place, and behavior 15 months later. Hence, in this chapter we will not only look at emotions as immediate reactions to feedback, but also at behavior that follows from these emotions in a management education context. This study will contribute to the literature on feedback reactions by examining the effects of procedural information (i.c., information about the procedures used to determine the feedback score) and information specificity (i.c., the amount of information participants receive regarding the feedback score) on immediate positive and negative emotions and on self-reported involvement in skill development activities over a year later. Here, we will propose that both information specificity and procedural information will moderate the relationship between positive and negative feedback and positive and negative emotions, and that these emotions subsequently will lead to involvement in skill development activities.

In the fourth empirical chapter (Chapter 5) we will delve deeper into the moderating effects of interactional justice by examining the role of interpersonal treatment in the relation between the feedback message and satisfaction with this feedback immediately afterwards. Moreover, by testing a moderated mediation model we will examine whether this interaction will lead to recommendation intentions and recommendation behavior through the experience of satisfaction with feedback. This study was also conducted with candidates of the television show *'Idool'*. The uniqueness of this long-term study lies in the fact that we are able to look at the actual feedback message that is conveyed to the candidates and the actual interpersonal treatment candidates receive by the judges instead

of the perceptions of the feedback message and treatment. Further, in this study we will investigate the effects of feedback on three possible responses, namely emotions (i.c., satisfaction), intentions (i.c., recommendation intentions) and actual behavior (i.c., recommendation behavior).

Finally, in Chapter 6 we will examine the effects of other-oriented feedback on emotions, attitudes and intentions. Studies have shown that praising or criticizing employees may not only affect the feedback receiver, but also his/her co-workers. In this scenario study, we propose that when an employee witnesses his/her colleague receiving praise or criticism, this may lead to positive and negative emotions, attitudes and intentions on the part of the 'bystander'. However, based on social comparison theories, we will argue that a crucial factor in determining whether these reactions will be positive or negative is the quality of the relationship one has with the praised/criticized colleague. By testing a moderated mediation model, we will further test whether these positive or negative emotions may subsequently lead to organizationally targeted attitudes (i.c., affective organizational commitment) or individually aimed behavioral intentions (i.c., interpersonal citizenship behavior and interpersonal counterproductive behavior).

After this fifth empirical part, this dissertation finishes with Chapter 7, in which I present the general conclusions and the theoretical, practical and research implications that can be drawn from the empirical studies. In addition, implications for future research and practice are provided.

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CHAPTER 2

WHEN IDOLS LOOK INTO THE FUTURE: INTERACTIONAL JUSTICE MODULATES THE AFFECTIVE FORECASTING ERROR IN TALENT SHOW CANDIDATES[1]

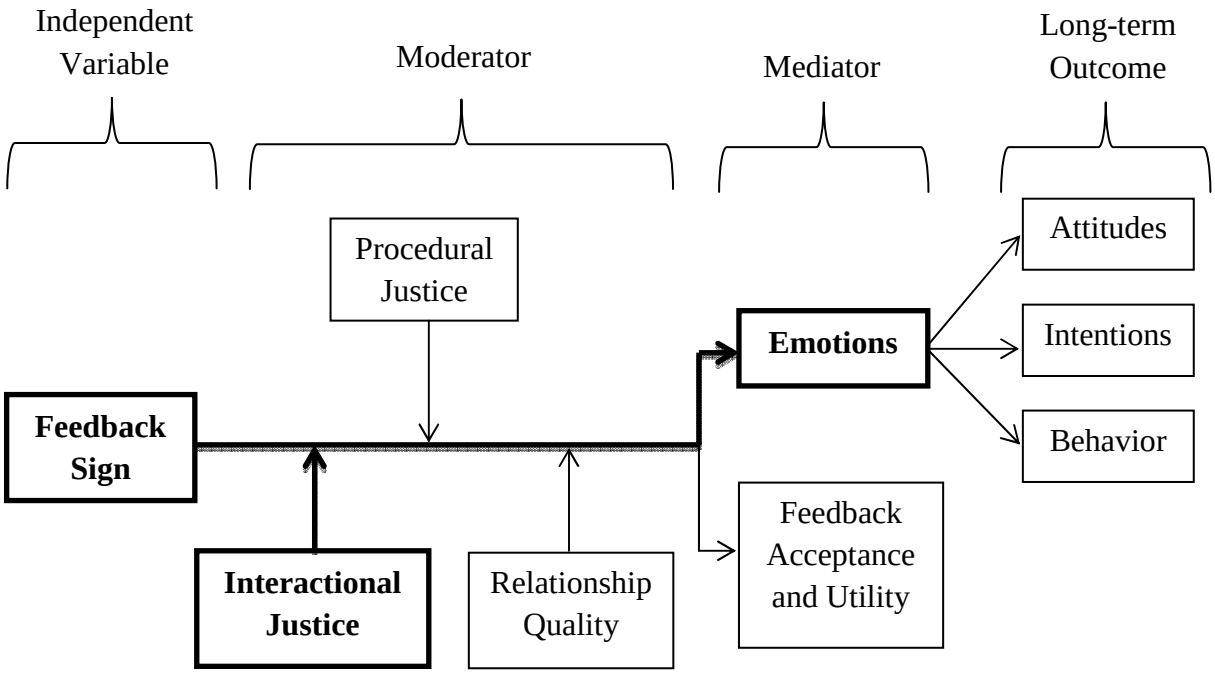

Figure 1. *Chapter 2 Situated in the Working Model of this Dissertation*

[1] This paper was co-authored by Frederik Anseel. Paper submitted for publication.

ABSTRACT

People's affective forecasts are often inaccurate because they tend to overestimate how they will feel after an event. As life decisions are often based on affective forecasts, it is crucial to find ways to manage forecasting errors. We examined the impact of interactional justice (i.c., a fair interpersonal treatment) on forecasting errors in candidates in a Belgian reality TV talent show. We found that interactional justice increased the forecasting error for losers (a negative audition decision) but decreased it for winners (a positive audition decision). For winners, this effect was even more pronounced when candidates were highly invested in their self-view as a future pop idol whereas for losers, the effect was more pronounced when importance was low. These results point to a potential paradox between maximizing happiness and decreasing forecasting errors. A fair interpersonal treatment increased the forecasting error for losers, but actually made them happier.

INTRODUCTION

"Well, Paula… I'm speechless, I don't know what to say... And well…that's not a great thing." (Paula Abdul)

"What was that?! That was terrible!" (Randy Jackson)

"I don't think any artist on earth could sing with that much metal in their mouth anyway… it's like a bridge." (Simon Cowell)

In January 2006, Paula Goodspeed participated in an audition of the TV show 'American Idol'. As reflected in their harsh verbal appreciation, the judges were not impressed and sent her home empty-handed. Two years later, the young woman was found dead in her car outside the home of Paula Abdul, one of the judges in 'American Idol'. When investigating the Goodspeed-case, the spotlight fell on her audition two years earlier. After the footage was aired, Goodspeed wrote on her blog that she was finding it difficult to cope with the 'haters' who mocked her. Goodspeed's family said she was confident and had high hopes when entering the competition, but was heartbroken at such a brutal rejection. This incident started the discussion regarding media's responsibility in

talent show formats, where aspiring candidates are confronted with harsh comments.

AFFECTIVE FORECASTING

The Goodspeed case illustrates how affective reactions to life events may be influenced by expectations and characteristics of the situation. The past decade, a substantial body of research has dealt with the question *how* and *how well* people predict their affective reactions to future events. Research has shown that people are not good at predicting their emotions correctly (for reviews, see Gilbert, Driver-Linn, & Wilson, 2002; Wilson & Gilbert, 2003). People expect to feel worse after negative events and better after positive events than they actually end up feeling (e.g., Gilbert, Morewedge, Risen, & Wilson, 2004). For instance, Gilbert, Pinel, Wilson, Blumberg and Wheatley (1998) demonstrated this tendency in six experimental studies in which participants overestimated the duration of their affective reactions across a wide range of life events (i.c., the dissolution of a romantic relationship, the failure of achieving tenure, an electoral defeat, negative personality feedback, an account of a child's death, and rejection by a prospective employer). All six studies confirmed the basic forecasting error and showed an overestimation of positive and negative emotions after different events. In Study 2 for instance, assistant professors were asked to predict how happy they would feel after achieving tenure, and how unhappy they would feel after failing to achieve tenure. Results showed that 'positive experiencers' (assistant professors who achieved tenure) were not as happy as forecasters believed they would be. In addition, recent 'negative experiencers' (assistant professors who failed to achieve tenure) were happier than forecasters estimated they would be. This forecasting error can be a detrimental factor in people's daily lives because it may prompt individuals to pursue the wrong goals (Greitemeyer, 2009), or make the wrong decisions about important life choices (Buehler & McFarland, 2001). If one is convinced that the only way to be truly happy is quitting one's job and moving to the South of France, the eventual outcome may actually be rather disappointing and have far reaching unforeseen personal implications.

Because of the importance of accurate forecasts, it is crucial to identify conditions under which the forecasting error increases or decreases, and ultimately find ways to manage this error. As Wilson and Gilbert (2005) stated: "*Finding ways to increase the accuracy of affective forecasts is a worthy enterprise – though not, we suspect, a particularly easy one"* (p. 134). To date, the studies that have answered this call have exclusively focused on individual difference variables that impact on the affective forecasting error (e.g., mood orientation, Buehler, McFarland, Spyropoulos, & Lam, 2007; Big Five personality variables, Hoerger & Quirk, 2010; anxious attachment, Tomlinson, Carmichael, Reis, & Aron, 2010). The two variables that have shown most potential in dampening the affective forecasting error to date are emotional intelligence and age. Dunn, Brackett, Ashton-James, Schneiderman and Salovey (2007) were among the first to find an association between affective forecasting accuracy and emotional intelligence. They found that high emotional intelligent individuals exhibited greater affective forecasting accuracy than people low in emotional intelligence, a finding that was recently replicated in two other studies (Hoerger, Chapman, Epstein, & Duberstein, 2012). This finding should not be surprising. To effectively manage emotions, one must first be able to monitor, discriminate, and label feelings appropriately (Dunn et al., 2007). In their study, Dunn et al. (2007) found that the relation between emotional intelligence and forecasting ability was best explained by the subscale 'Emotion Management'. This suggests that when making forecasts, people high in emotion management recognize how they will up- or down-regulate emotions in the face of affective events, leading them to make more realistic assessments of their post event feelings (Dunn et al., 2007). Second, several scholars have looked at the moderating effect of age on the affective forecasting error (e.g., Kim, Healey, Goldstein, Hasher, & Wiprzycka, 2008; Nielsen, Knutson, & Carstensen, 2008; Scheibe, Mata, & Carstensen, 2011). In a recent study, Scheibe et al. (2011) looked at individuals' age differences in affective forecasts and their accuracy by surveying voters about their expected and, subsequently, their actual emotional responses to the 2008 US presidential election. They found that forecasting accuracy was enhanced with age, but only among supporters of the winning candidate, not among supporters of the losing candidate, suggesting a

positivity effect in affective forecasting. This finding is consistent with the positivity effect in information processing, suggesting that older adults strategically avoid negative material and show lower neural anticipation of losses (Mather & Carstensen, 2005; Samanez-Larkin et al., 2007).

Although profiling the *type of individuals* that typically make more or less forecasting errors clearly is important, such knowledge offers few opportunities to actively manage this error by external parties. In order to find ways to influence the forecasting error, it is crucial to determine *situational conditions* under which the error increases or decreases. Such knowledge may enable policy makers to actively alter situational characteristics of important life events (e.g., important career moves, election decisions) to minimize forecasting errors. To date no research has investigated situational characteristics of the event itself that may influence forecasting inaccuracy. In this study, we provide a first step in this important endeavor by focusing on one crucial aspect of the focal experience, namely, whether individuals experienced a fair interpersonal treatment. More specifically, we propose and test in a natural field setting how individuals who experience a fair or unfair interpersonal treatment make larger or smaller forecasting errors. To examine potential modulating effects on the forecasting error, it is necessary to first replicate the forecasting error in its basic form in this new field setting, namely during auditions for the TV talent show *Idool* (Belgian version of *American Idol*). For reasons of brevity, we will refer to candidates that are rejected during the first round of *Idool* auditions as ‘losers’ and those that may proceed to the next round of auditions as ‘winners’. It should be noted that the unique setting of this study implies a particular robust and ecologically valid test of the forecasting error. Forecasting researchers have often chosen to examine anticipated emotions only (e.g., Sevdalis & Harvey, 2009), focus on negative *or* positive events rather than both (e.g., Keller & Bless, 2009) or rely upon a between-group design, where different samples of participants, often students, are asked to rate either their anticipated or experienced reactions to an event, often in lab settings (e.g., Fernandez-Duque & Landers, 2008). In this field study, however, we investigated both anticipated and actual emotional reactions to a high-stakes career decision over time in the same group of candidates.

In line with previous forecasting error research, we expect:

Hypothesis 1. Winners will overestimate how good they will feel (H1a) and losers will overestimate how bad they will feel (H1b).

INTERACTIONAL JUSTICE

Over 30 years ago, Lerner (1980) proposed that people have a deep-seated psychological need to believe that the world is a fair place, in which individuals get what they deserve (Sutton & Winnard, 2007). According to this 'just-world' theory, this belief originates in early childhood, leading children to regulate their behavior based on the expectation that they will receive a fair treatment in turn (e.g., Dalbert, 1999; Hafer, 2002; Lerner, 2002). Moreover, Lerner (1980) argued that people form separate representations of 'the world of the victim', where unjust things often happen to others, versus the 'world of the self' in which justice prevails (see also Hafer, 2002). Hence, according to the just-world theory, when thinking about what will or may happen in one's own future, individuals are generally convinced that they will be treated fairly, and that they will receive the outcomes they deserve.

However, one of the implications of Lerner's (1980) theory that remains underexplored but that is one of the key assumptions from affective forecasting theory, is that the representations people make of future events are often wrong, and that an actual event may be different, less fair, from what was previously anticipated. Research indeed suggests that when people think about an event, they often fail to consider the possibility that their particular, momentary conceptualization of the event is only one of many ways in which they might have conceptualized it and that the event they are imagining may thus be quite different from the event that actually comes to pass (e.g., Dunning, Griffin, Milojkovic, & Ross, 1990; Gilbert et al., 1998; Griffin, Dunning, & Ross, 1990; Griffin & Ross, 1991). This phenomenon, termed '*misconstrual*', was proposed as one of the primary causes of why people are so unsuccessful in making accurate predictions about their future emotions (e.g., Gilbert et al., 1998). For instance, although most people feel certain that they would not enjoy going blind, phrases such as 'going blind' actually describe a wide range of events

(e.g., slowly losing one's eyesight as a result of congenital defect or suddenly losing one's eyesight during a heroic attempt to rescue a child from a burning house), and these events may have an equally wide range of emotional consequences (Gilbert et al., 1998). Moreover, misconstruing an event and the forecasting inaccuracy that follows from it is most likely to occur when the event has never been experienced before (Gilbert et al., 1998). Hence, when forecasters misconstrue an event they typically conceive it as more impactful on their emotions than it actually turns out to be, leading them to naturally overestimate their affective responses (e.g., Gilbert et al., 1998).

On the basis of just world theory, the typical construal for candidates in this particular setting will involve the expectation that they will be treated fairly, which is commonly labeled as high interactional justice (e.g., Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Individuals typically have inflated positive self-views (Alicke & Sedikides, 2009). In the case of *Idool* candidates, we believe that the positivity of their self-concept as singers will be even more elevated given their interest in participating in a talent show. Given their positive self-views in this life domain, an expected fair treatment should result in the appropriate recognition of their talent. Thus, the default anticipation among participants will be to be chosen as one of the 'winners' in the first round on the basis of fair procedures. Thus, when candidates are required to anticipate a positive decision (i.e. they stay in the competition), they will consider fair treatment as the default reason for their future success in the competition. After all, they see themselves as potential future idols. This anticipation of a bright future is expected to lead them to predicted high levels of future happiness.

However, when the actual audition takes place, the forecasting error may occur because candidates experience lower fairness than imagined, leading to less positive emotions (i.e. a lower experienced affect score) than predicted, thus a relative sizeable affective forecasting error. Conversely, when candidates experience that they are treated fairly during the audition, this will lead to an increase of positive feelings (i.e. a higher experienced affect score) for winners, attaining a level closer than what was initially anticipated. Hence, because fairly treated winners experience a situation that is closer to the construed situation, the affective forecasting error will be smaller than when they are treated

unfairly. Thus, the forecasting inaccuracy for winners will *decrease* due to fair treatment.

When candidates have to consider the possibility of failure (i.c., a negative decision), they will construe the anticipated event as one wherein they are treated unfairly. They started off with anticipating recognition of their talent but the prospect of a harsh rejection will lead them to attribute this to faulty procedures. Thus, given their positive self-concept as a singer, unfair treatment is the most likely reason for their failure. However, when the event actually takes place, and candidates feel they are treated fairly during the audition, even when they lose, this will lead to unanticipated positive feelings (i.e. a higher experienced affect score) and a relatively large affective forecasting error. Conversely, when losers have the feeling that they are treated unfairly during the audition, this will lead to the expected negative feelings (i.e. a lower experienced affect score), attaining a level closer than what was initially anticipated. Hence, because fairly treated losers experience a situation that is discrepant from the construed situation, the affective forecasting error will be larger than when they are treated unfairly. Thus, the forecasting inaccuracy for losers will *increase* due to fair treatment.

In sum, we expect that:

> *Hypothesis 2.* Interactional justice will decrease the inaccuracy of affective forecasts for winners (H2a) and will increase the inaccuracy for losers (H2b).

IMPORTANCE OF SELF-VIEW

Recently, researchers have proposed that interactional justice concerns become particularly salient when central aspects of the self are under threat (e.g., De Cremer & Tyler, 2005). In their self-activation model of social justice, van den Bos, Miedema, Vermunt and Zwenk's (2011) propose that situations that posit a potential threat for the self are most likely to direct attention to fairness issues. For instance, Johnson, Selenta and Lord (2006) found that when people's relational self-concepts were triggered, they placed more emphasis on

the interpersonal treatment, and thus were more sensitive to interactional (in)just events. On the basis of these theoretical perspectives, we expect that the effects of interactional justice on the affective forecasting error will be more pronounced as candidates are more heavily invested in their self-view as a singer. In line with previous research in the self-concept literature, we conceptualize a high level of self-investment as the importance individuals attach to their focal self-view. Self-views that are strongly linked to individuals' goals and values, those that they identify as more personally important, are self-views that strongly influence candidates' global sense of self-worth. More than a century ago, James (1890) already suggested that abilities or identities on which people have "staked their salvation" should contribute significantly to self-esteem, whereas those to which people are less committed should have little impact on their perceptions of self-worth. Indeed, individuals have been found to seek most feedback on those self-views they are most invested in (Anseel & Lievens, 2007). Similarly, the importance of people's beliefs about themselves, increases the likelihood that individuals will respond favorable to feedback or question the accuracy of other people's judgments about themselves (Pelham & Swann, 1989). Given the centrality of highly invested self-views for the candidates' general self-worth, talent show auditions should create a particular sensitive study context for interactional justice effects as candidates anticipate an evaluation of the focal self-view as a future artist. In this setting, a high self-investment in their artistic self-view should therefore lead to an increased focus on threats to the self when anticipating the competition, and thus a higher attention to interactional justice issues.

Hence, we expect that the importance candidates place on succeeding in this audition will influence the relation between interactional justice and the affective forecasting error. More specifically, for winners we expect that when they are treated fairly, they will feel even closer to the happiness level they predicted, when they attach greater importance to succeeding in the audition. For these candidates, succeeding is very important making them more sensitive to just treatment and justice breaches. Experiencing a fair treatment and their heightened attention for it should make the "winning" situation even more similar to their construal. Thus, when winners who attach great importance to

succeeding are treated fairly, their feelings of happiness will attain a level close to what was initially anticipated, leading to a decrease in forecasting inaccuracy. On the other hand, candidates who find succeeding less important, will be relatively less sensitive to justice issues. Hence, although these candidates will also feel better due to fair treatment, this increase in positive feelings will not be as high, leading to a smaller decrease in the forecasting inaccuracy. Thus, for winners we expect the forecasting error to *decrease* due to fair treatment, and this effect will be greater when importance is high.

For losers, we expect that when they are treated fairly, they will feel less negative than expected, and this will be even more so when they attach greater importance to succeeding in the audition. These 'high importance' individuals will be especially sensitive to just treatment or justice breaches, and hence will react more favorably when treated fairly than individuals who attach low importance to succeeding. Thus, when losers who attach great importance to succeeding are treated fairly, they will feel happier (or less unhappy) than predicted. Hence, their feelings of happiness will attain a level more discrepant from what was initially anticipated, leading to an *increase* in forecasting inaccuracy. On the other hand, candidates who find succeeding less important, will not be as sensitive to justice. Thus, although these candidates will also feel better due to fair treatment, this rise in positive feelings will not be as high, leading to a smaller increase in the forecasting inaccuracy. Hence, for losers we expect the forecasting error to *increase* due to fair treatment, and this effect will be greater when importance is high.

Hence, in this study we expected candidates' self-reported importance of their self-view to moderate the relation between interactional justice and the forecasting inaccuracy. More specifically, we propose the following hypotheses:

> *Hypothesis 3a*. For winners, interactional justice will decrease the inaccuracy of affective forecasts, and this effect will be more pronounced when importance is high than when importance is low.

Hypothesis 3b. For losers, interactional justice will increase the inaccuracy of affective forecasts, and this effect will be more pronounced when importance is high than when importance is low.

METHOD

PARTICIPANTS AND PROCEDURE

Participants were candidates in the reality television show *Idool* (Belgian version of the renowned singing contest format *American Idol*). This talent show was first aired as *Pop Idol* on British television in 2001. The format has turned into a true global phenomenon, airing over 135 series (e.g., *American Idol, Arab Idol, Australian Idol, Idool)* across more than 40 territories, proving a track record of guaranteed success in every country where it has been aired. In this study, in total 409 candidates participated (40.4% male, 59.6% female; mean age = 20.5, *SD* = 3.2). Self-report data were collected on two points in time (T1 = distributed one week before the auditions; T2 = between two to six days after the auditions).

MEASURES

Control variables (T1). Gender, age and emotional stability were included as control variables in all analyses. Emotional stability was measured using three items developed by Judge, Erez, Bono and Thoresen (2003). A sample item is '*Sometimes, I feel depressed*' (reversed-coded). Responses were made on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) (α = .71).

Affective forecasting (T1, T2). On T1, participants were informed that they would receive a follow-up questionnaire two days after the audition. Participants were asked to predict how (un)happy they would feel at that time if they received a positive decision and if they received a negative decision on a scale from -4 *(very unhappy)* to +4 (*very happy*). Two days after the audition (T2), participants received the follow-up questionnaire and were asked to indicate how happy they felt that time using the same response scale.

Importance (T1). Importance was measured with three items that assessed the importance the candidates placed on their self-views as a singer and on succeeding in the audition. A sample item is '*It is important to me as a*

person to perform well on this audition'. Responses were made on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) (α =.87).

Interactional justice (T2). Interactional justice was assessed with four items targeting participants' perceptions of the fairness of interpersonal treatment (Bauer et al., 2001). A sample item was '*The judges treated the candidates with respect during the audition*'. Responses were made on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) (α = .81).

RESULTS

HYPOTHESES 1A AND 1B

Descriptive statistics and correlations are presented in Table 1. First, as can be seen in Table 2 and Figure 2, a paired sample t-test revealed that winners were significantly unhappier than they had expected to be, t = -3.09, p < .01 and that losers were significantly happier than they had expected to be, t = -9.67, p < .001. Thus, Hypotheses 1a and 1b were supported, replicating the basic forecasting error.

Table 1

Means (M), Standard Deviations (SD), and Intercorrelations among Demographic, Control, Independent, and Dependent Variables

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Gender	-	-										
2. Age	20.46	3.24	-.13*									
3. Group	-	-	-.06	-.04								
4. Emotional stability	3.39	0.95	-.05	.10*	-.04	(.71)						
5. Predicted happiness-Positive event[a]	3.75	.65	.19**	-.05	-.10	.06						
6. Predicted happiness-Negative event[b]	-1.77	1.51	-.07	.01	-.00	.14**	-.21**					
7. Actual happiness	1.01	2.32	-.01	.03	.55**	.08	-.07	.19**				
8. Forecasting error	1.93	1.82	.07	.01	-.36**	-.03	.06	-.19**	.18**			
9. Interactional justice	3.04	1.33	-.11	.04	.52**	.02	-.10	.15*	.50**	-.10	(.81)	
10. Importance	4.79	.59	.09	.01	-.04	.05	.43**	-.11*	-.13*	-.12	-.12	(.87)

Note. Internal consistency reliabilities are reported in parentheses on the diagonal. $^{*}p < .05$, $^{**}p < .01$

[a] This variable refers to the one-item measure: '*How happy will you feel if you receive a positive decision?*' ; [b] This variable refers to the one-item measure: '*How unhappy will you feel if you receive a negative decision?*'. These variables are mentioned separately, as they are two different constructs measured in a different way.

Table 2

Affective Forecasts and Actual Happiness of Participants (H1a and H1b)

	Happiness	Forecast (T1)	Actual (T2)	Paired T-Test
Winners	*M*	3.69	3.15	0.52
	SD	0.82	1.10	1.39
	N	67	67	67
Losers	*M*	-1.78	0.26	-2.06
	SD	1.45	2.51	2.43
	N	130	130	130

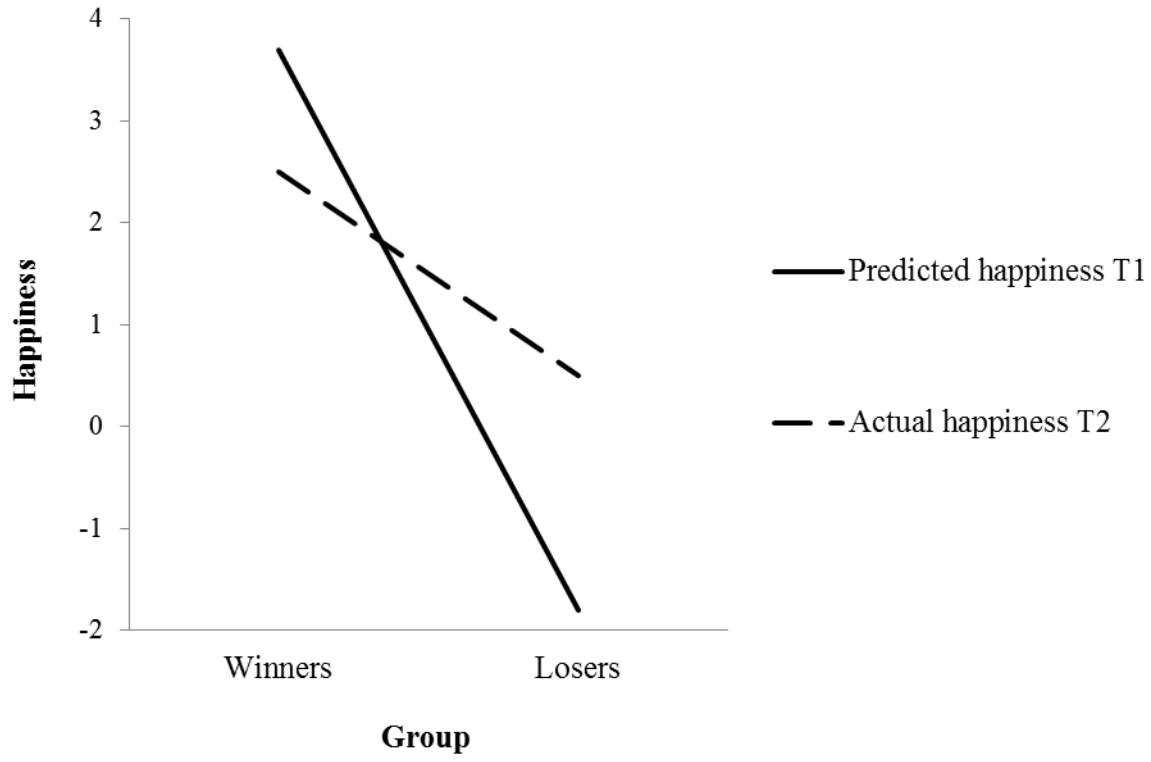

Figure 2. *Affective Forecasting Error for Winners (H1a) and Losers (H1b)*

HYPOTHESES 2A AND 2B

In line with previous research into moderators of the affective forecasting error (e.g., Dunn et al., 2007), we first calculated an absolute difference score as a measure of forecast inaccuracy (| Predicted happiness T1 – Actual happiness T2 |). As the outcomes are absolute values, higher values indicate a higher degree of inaccuracy between predicted and actual happiness. Next, to test Hypotheses 2a and 2b, we conducted hierarchical regression analyses to see whether interactional justice influenced the degree of inaccuracy using gender, age and emotional stability as control variables. As can be seen in Table 3, interactional justice had a significant decreasing effect for winners (ΔR^2= .16, $F(1,65) = 12.42$, $p < .01$; β = -.56, $p < .01$) and a significant increasing effect on the degree of inaccuracy for losers (ΔR^2= .06, $F(1,171) = 10.94$, $p < .01$; $\beta = .36$, $p < .01$).

In order to test the robustness of these results, we also adopted a different within-subjects approach to test for moderator hypotheses of the affective forecasting error (e.g., Scheibe et al., 2011). In line with this approach, we conducted a repeated-measures general linear model analysis with happiness (predicted happiness and actual happiness) as within-subjects factor, group (‘winners’ or ‘losers’) as between-subjects factor, and interactional justice as covariate. Here, we did not find a main effect of happiness, $F(1,245) = 2.36$, $p > .05$, $\eta^2 = .01$. However, as hypothesized, we found a significant interactive effect between happiness and interactional justice, $F(1,245) = 12.49$, $p < .001$, $\eta^2 = .05$.

To interpret these effects, we first performed follow-up analyses correlating interactional justice with the difference score between predicted happiness and actual happiness separately for both groups (see also Scheibe et al., 2011). There was a negative relation between inaccuracy and interactional justice for winners (r = -.40, $p < .01$), indicating that for winners, the inaccuracy decreased with higher levels of interactional justice. Conversely, the relation between inaccuracy and interactional justice for losers was positive (r = .21, $p < .01$), indicating an increase in inaccuracy with higher levels of interactional justice. Second, to further determine if the pattern of the interaction for losers was consistent with our hypotheses, we plotted the interaction in Figure 3. Standardized coefficients of the simple slopes were calculated by using the

macros developed by O'Connor (1998). Standardized coefficients of both simple slopes were significantly different from 0 (β = -1.78, p < .01 for winners and β = .49, p < .05 for losers). As can be seen from Figure 3, the pattern of the interaction for winners and losers was as predicted: the forecasting inaccuracy for winners decreased due to fair treatment, whereas the forecasting error increased for losers due to fair treatment. Hence, as evidenced by two types of forecasting analytic methods, the results are in line with our theoretical arguments, supporting Hypotheses 2a and 2b.

Table 3

Summary of Hierarchical Regression Analysis of Interactional Justice on Inaccuracy (H2a and H2b)

		Winners (N = 70)						Losers (N = 176)					
		b	*SE(b)*	ß	*t*	*p*	ΔR^2	*b*	*SE(b)*	ß	*t*	*p*	ΔR^2
Step 1	Gender	-.04	.30	-.01	-.12	.91	.03	.25	.28	.07	.90	.37	.00
	Age	.03	.05	.07	.58	.56		.01	.04	.01	.15	.88	
	Emotional stability	-.22	.16	-.16	-1.36	.18		-.04	.14	-.02	-.29	.77	
Step 2	Interactional justice	-.56	.16	-.40	-3.52	.00	.16**	.36	.11	.25	3.31	.00	.06**

Note. Regression coefficients are for the final step. ** $p < .01$

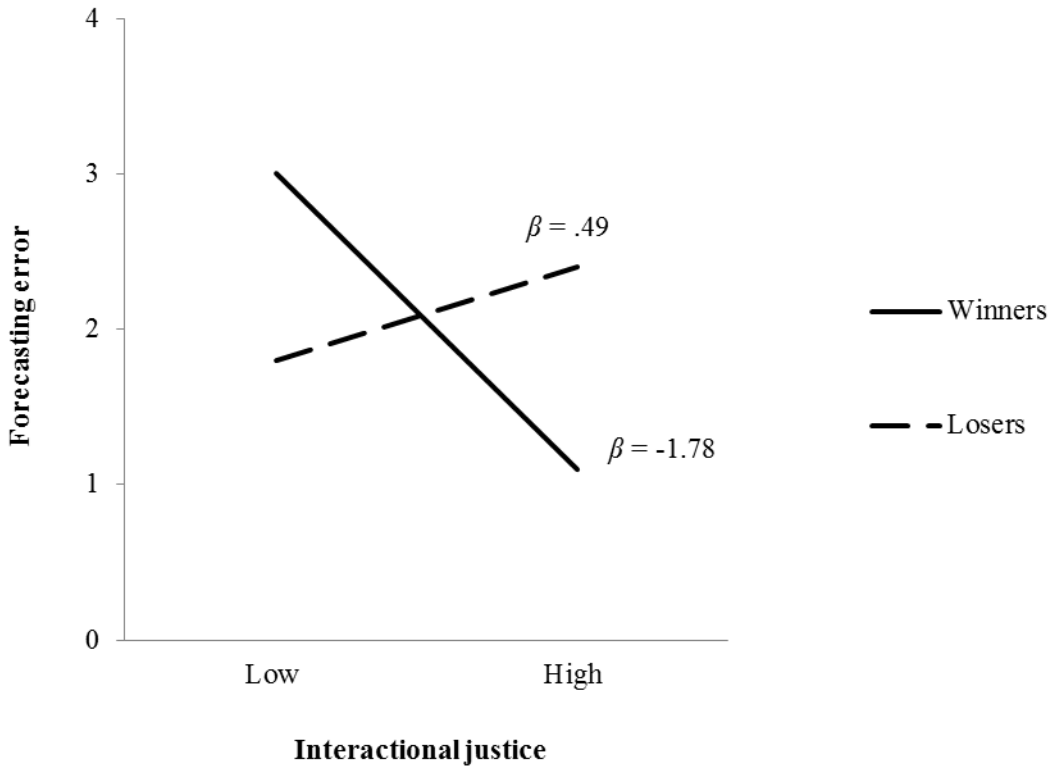

Figure 3. *Size of Affective Forecasting Error for Low and High Interactional Justice for Winners (H2a) and Losers (H2b)*

HYPOTHESES 3A AND 3B

Next, we conducted a regression analysis to see which predictors, including the interaction term of interactional justice and importance, were statistically significant. Results are shown in Table 4. As hypothesized, the interaction between interactional justice and importance was statistically significant for winners (β = -.77, $p < .05$; ΔR^2 = .06, $F(1,63) = 5.28$, $p < .05$). Further, the interaction was also significant for losers (β = -.44, $p < .05$; ΔR^2 = .03, $F(1,169) = 5.59$, $p < .05$).

Table 4

Summary of Hierarchical Regression Analysis of Interactional Justice and Importance on Inaccuracy (H3a and H3b)

		Winners (N = 70)						Losers (N = 176)					
		b	*SE(b)*	*ß*	*t*	*p*	ΔR^2	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	.15	.29	.06	.51	.62	.03	.23	.27	.06	.86	.39	.00
	Age	.05	.04	.13	1.15	.25		-.35	.04	-.00	-.00	.99	
	Emotional stability	-.12	.15	-.09	-.79	.43		-.03	.14	-.02	-.20	.84	
Step 2	Interactional justice	-.54	.15	-.39	-3.56	.00	.21†	.31	.11	.21	2.86	.01	.07**
	Importance	.75	.53	.45	1.40	.17		.10	.32	.03	.32	.75	
Step 3	Interactional justice x Importance	-.77	.33	-.74	-2.30	.03	.06*	-.44	.19	-.22	-2.36	.02	.03*

Note. Regression coefficients are for the final step. $^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$

Again, in order to test the robustness of these results, in a second step we conducted repeated-measures general linear model analysis with happiness (predicted happiness and actual happiness) as within-subjects factor, group (‘winners’ or ‘losers’) as between-subjects factor, and interactional justice and importance as covariates (see also Scheibe et al., 2011). Here, the repeated measures analysis showed that, as expected, the interactive effect between happiness and importance was indeed significant, $F(1,244) = 6.05$, $p < .05$, $\eta^2 = .03$.

To determine if the pattern of the interaction for losers was consistent with our hypotheses, we plotted the interaction in Figures 4 and 5. Standardized coefficients of the simple slopes were calculated by using the macros developed by O’Connor (1998). For winners, the standardized coefficients of the simple slopes show that both slopes were significantly different from 0 ($\beta = -1.10$, $p < .001$ for high importance and $\beta = -.74$, $p < .05$ for low importance). As can be seen from Figure 4, the pattern of the interaction for winners was as predicted: the forecasting inaccuracy decreased due to fair treatment, and this effect was most pronounced for high importance individuals. Thus, Hypothesis 3a could be confirmed.

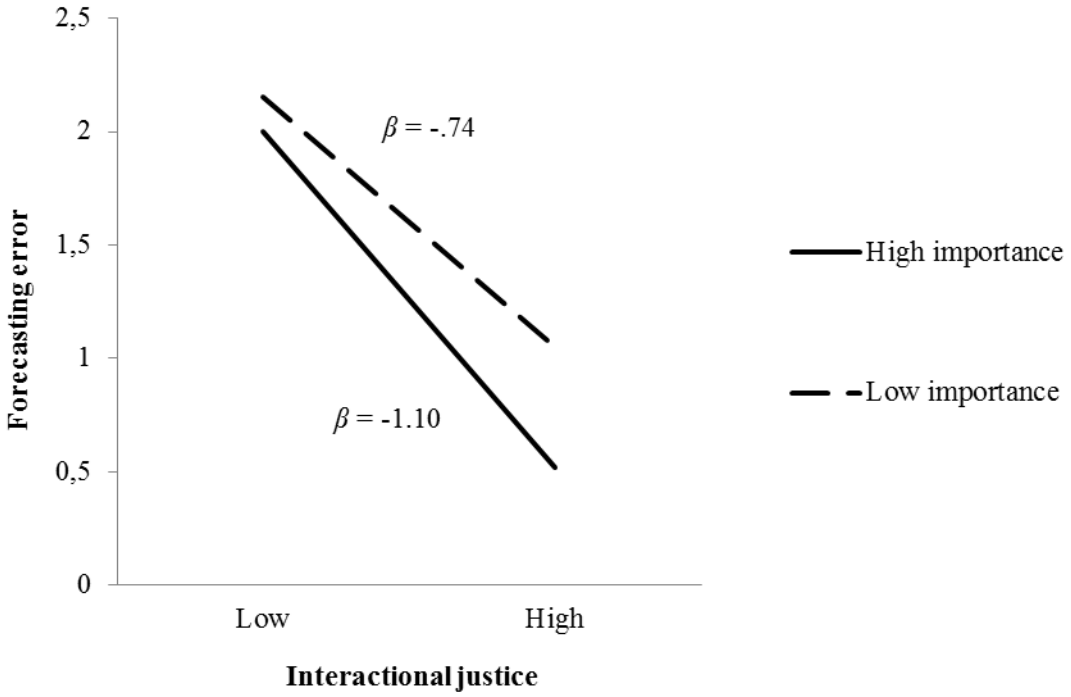

Figure 4. *Interaction of Interactional Justice and Importance on the Affective Forecasting Error for Winners (H3a)*

For losers (Figure 5), only the standardized coefficient of low importance was significantly different from 0 (β = .33, p < .05). The simple slope for high importance was not significantly different from 0 (β = .19, p > .05). As can be seen from Figure 5, there is indeed an increase in the affective forecasting error for losers, but this is steeper for low importance, and almost non-existent for high importance, which is contrary to what we predicted. Hence, as we observed an increase in forecasting error only for losers with low importance scores, Hypothesis 3b was not supported.

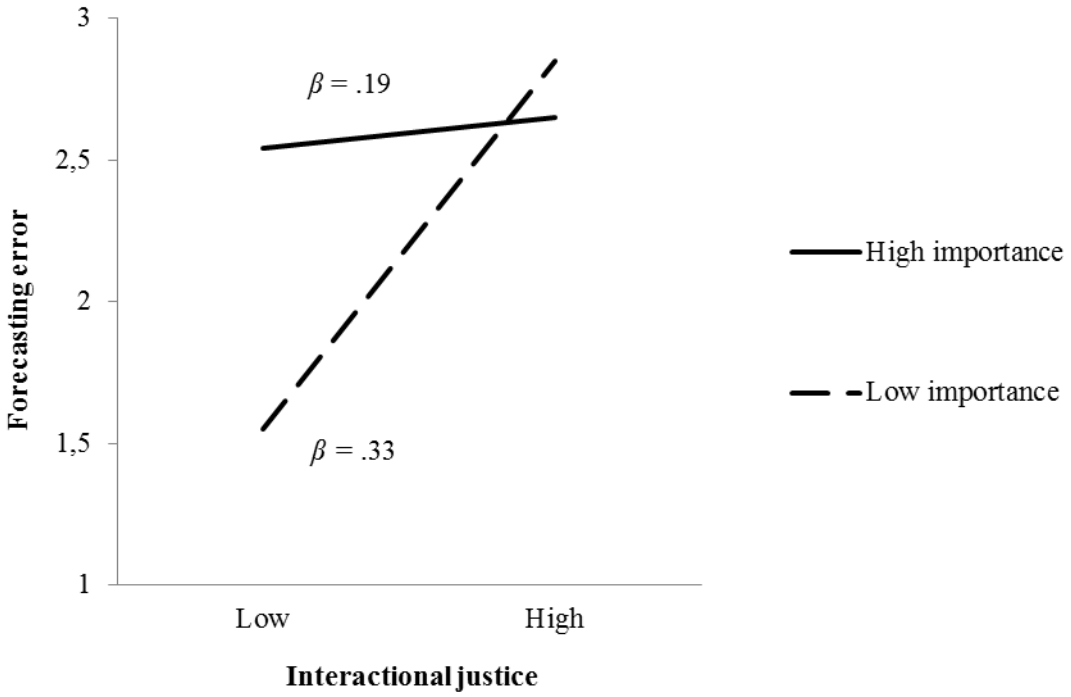

Figure 5. *Interaction of Interactional Justice and Importance on the Affective Forecasting Error for Losers (H3b)*

DISCUSSION

The current study set out to inspire a new stream of research on affective forecasting by focusing on situational factors that may enhance or hinder the accuracy of the forecasts people make about their happiness after important life events. A better understanding of how situations may alter individuals' forecasts is theoretically important as it may bring new insights in how forecasts are formed. However, equally important, it will bring much needed evidence to help policy makers shape situations that diminish forecasting errors in individuals. We first replicated the basic premise of affective forecasting research in this new, important field setting: In a talent show, losers felt less bad than they had expected, and winners felt less good than they had expected. The main focus of our study was, however, to examine how one aspect of the situation, that should be easily manageable to external parties, may affect this forecasting error. Importantly, we found that the degree of inaccuracy increased for losers and decreased for winners when interactional justice was high. As a final step, we further explored whether this situational influence of interpersonal treatment had

differential effects on talent show participants depending on their investment in their self-view as an artist. This is important, as it would imply that treatment strategies designed to mitigate affective forecasting errors might be more appropriate for some individuals and might be customized to specific participants. To this end, we tested the effect of the interaction between interactional justice and self-view importance. Both regression analysis and repeated measures analysis showed that the effect of the interaction on forecasting inaccuracy was significant. For winners, as expected we found that the forecasting inaccuracy decreased due to fair treatment, and this effect was most pronounced when importance was high. For losers, we found that the forecasting inaccuracy increased due to fair treatment, but this was more outspoken for low importance, disconfirming our hypothesis. For high importance, the increase in forecasting error was not significant.

The chief implication of our study is that interpersonal fairness plays an important role when making affective forecasts. Conceptually, this seems to indicate that the anticipation of a future affective state involves the construal of an interactional fair situation, as was implied in Lerner's just-world theory. Thus, when people reflect on future events, they expect to be treated fairly and this forms the basis of their predictions of how they will feel. However, in the real world events often turn out not to be as just as we would like to. Thus, our conclusions imply that an important factor that lies at the basis of misconstrual in affective forecasting are individuals' implicit assumptions that the world is a just place. This knowledge may be crucial given the importance of affective forecasting in guiding our decision-making (Kermer, Driver-Linn, Wilson, & Gilbert, 2006; Mellers, 2000) and pursuing our goals (e.g., Greitemeyer, 2009). Being aware that unrealistically positive or negative predictions may be caused by faulty fairness expectations may help individuals to better manage their predictions and subsequently make better decisions. Further, knowing that the (un)fairness of an event may impact the error and enhance people's reactions may help policy makers (e.g., organizations hiring new employees or making tenure decisions, talent competitions) to pay more attention to the interpersonal treatment to minimize individuals' forecasting errors.

In addition, we found that the importance of individuals' self-views moderated the relation between interactional justice and the forecasting error. Winners who were treated fairly and attached high importance to their self-view, felt almost as positive as they had forecasted prior to the auditions. Thus, individuals who attached greater importance to succeeding were indeed more sensitive to instances of justice and to justice breaches, leading to more positive feelings when treated fairly, and more negative feelings when treated unfairly. This finding is in line with the predictions of the self-activation model of social justice (van den Bos et al., 2011). The more importance individuals attach to their self-views, the more an evaluation of these self-views may be threatening to their self-worth, leading them to pay more attention to fairness issues. This finding bodes well for the viability of the self-activation model of social fairness for explaining people's fairness interpretations in different situations. However, before integrating these previously unconnected research streams, we should pay attention to the lack of support for Hypothesis 3b. With regard to the interactive effects for losers, we found only an increase in the forecasting error for individuals who attached low importance to their self-view as an artist. Losers who were treated fairly but found succeeding not extremely important, felt less bad as they had forecasted prior to the auditions. For these candidates, the combination of high interactional justice and low importance led to higher experienced happiness due to the fair treatment, leading to a situation that was discrepant from their initial construal, and thus, increasing the forecasting error. However, we found that when self-view importance was high, the forecasting error was the same for candidates who were treated with respect, and candidates who were treated disrespectfully. Thus, for losers, the treatment candidates receive makes little difference for their happiness when the importance they attach to succeeding is high. A viable explanation is that, under conditions of extreme self-view investment, candidates have such a high need to protect their ego that when they hear that they 'lost', they no longer pay attention to aspects of the environment such as informational feedback or the way they are treated. In the case of unambiguous negative feedback, paying attention to the fairness of treatment might be even more hurtful for the self as one might be obliged to conclude that the treatment was actually pretty fair and come to the inescapable

conclusion that the central self-view that is so strongly held, is plain wrong. Therefore, from a self-enhancement perspective, it might be safer to 'shut off' from the environment in case of failure. This would be in line with the main tenets of the mnemic neglect model (Sedikides & Green, 2004), which contends that people recall self-referent feedback poorly when it carries negative implications for central self-aspects, because such feedback is perceived as threatening. For instance, Sedikides and Green (2004) showed that participants manifest such mnemic neglect only when the central negative feedback is highly diagnostic of self-aspects (high in threat potential), not when it is low in diagnosticity (low in threat potential). Of course, as these explanations are tentative, future research should examine whether further support can be found for them. Our results suggest that predictions of the mnemic neglect model and the self-activation model of social justice should be reconciled in future research to make more accurate predictions about affective forecasts in high-stakes settings.

Finally, our study points to a potential paradox between maximizing happiness and decreasing forecasting errors. Although it is generally proposed that we should seek to increase the accuracy of forecasts, this may not always be desirable. In this study for instance, a fair treatment increased the forecasting error for losers, but actually made them happier. Future research should examine how both effects (e.g., increased error, increased happiness) affect individuals in the long term to evaluate their trade-off.

In conclusion, our study shows that interactional justice and importance have the potential to influence the degree of forecasting inaccuracy. This study is a first step towards finding ways to manage the forecasting error. We encourage scholars to seek for other potential situational variables, to actively manipulate them and explore the possibility of developing interventions and strategies for externally managing individuals' natural tendency to overestimate how they will feel after important life events.

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CHAPTER 3

A CLOSER LOOK AT THE RELATIONSHIP BETWEEN JUSTICE PERCEPTIONS AND FEEDBACK REACTIONS: THE ROLE OF THE QUALITY OF THE RELATIONSHIP WITH THE SUPERVISOR[1]

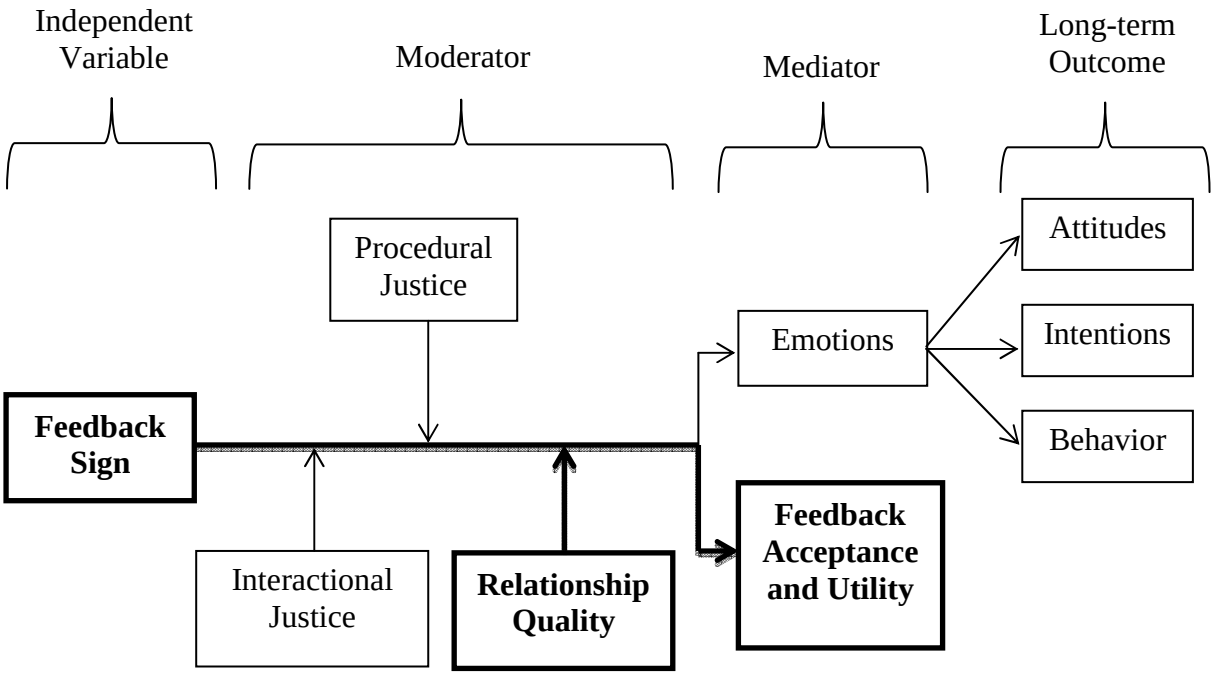

Figure 1. *Chapter 3 Situated in the Working Model of this Dissertation*

[1] Feys M.*, Libbrecht, N.*, Anseel, F., & Lievens, F. (2008). A closer look at the relationship between justice perceptions and feedback reactions: The role of the quality of the relationship with the supervisor. *Psychologica Belgica, 2-3,* 127-156.

*Equal contribution

ABSTRACT

Two field studies were undertaken to investigate the nature of the relationship between justice perceptions and feedback reactions. Previous work suggests that the relationship between procedural justice and feedback reactions is mediated by the quality of the relationship with the supervisor. However, there are also good theoretical reasons to hypothesize that the relationship between justice perceptions and feedback reactions is moderated by relationship quality. Across two field studies, we found support for both mediated and moderated relationships. Results of the moderator analyses showed that the positive relationship between justice perceptions and feedback reactions was more pronounced for subordinates in a low-quality relationship with their supervisor. The present results provide useful suggestions for enhancing feedback reactions in organizations.

INTRODUCTION

Providing feedback to employees (i.e. giving people information about the outcomes of their achievements with the purpose of stimulating development and learning) is believed to be essential for maintaining and increasing employee motivation and satisfaction (Jawahar, 2006). Although meta-analytic results have shown that feedback interventions do not always increase performance, they suggest that these interventions improve performance on average (Kluger & DeNisi, 1996). In organizations, the assumption also prevails that giving employees feedback is essential to improve individual and organizational performance. Traditionally, organizations rely on performance appraisal and performance reviews as vehicles for giving employees feedback, thereby improving their performance (Gregory & Levy, 2008).

Although almost every large organization uses some type of performance appraisal method, there seems to be quite some dissatisfaction about performance appraisal. Lawler (1994) aptly summarized this discontentment: "*The problem – and it is well documented – is that most performance appraisal systems do not motivate individuals nor guide their development effectively*" (p. 106). In recent years, there have been calls to conduct more research about the efforts organizations can undertake to turn performance appraisal into a more

effective feedback intervention (e.g., Levy & Williams, 2004). In this regard, it seems especially important to improve our understanding of why and when employees are inclined to accept and use feedback given to them. Only when employees are prepared to use and accept the feedback they receive during performance appraisal, it can be expected that performance appraisal leads to employee development (Anseel, Lievens, & Levy, 2007).

The present paper aims to gain a better insight into the factors that can enhance feedback reactions in performance appraisal. Recent research suggests that two principles are of key importance. On the one hand it seems important for employees to establish a good relationship with their supervisor (the provider of feedback). On the other hand it is crucial for employees to have the feeling they are treated in a fair manner during the performance appraisal (Elicker, Levy, & Hall, 2006; Leung, Su, & Morris, 2001). In this study, we will explore both a mediated and moderated model explaining the relationship between these two principles (relationship quality and procedural justice perceptions) and feedback reactions. While previous research suggested that relationship quality and justice perceptions have (indirect) main effects on feedback reactions supporting a mediated model, we believe that theoretical work would also be supportive of other interrelationships. More specifically, we hypothesize that maybe the influence on feedback reactions exerted by one factor depends on the influence of the other factor. In other words, we will not only test mediated main effects, but we will also examine the interaction effect between relationship quality and procedural justice on feedback reactions. In order to guarantee the robustness and generalizability of our findings, we examine the hypotheses in two different field studies with different types of performance appraisal and different operationalizations of the variables studied. A better understanding of the role of the two assumed principles (relationship quality and procedural justice) in determining feedback reactions following performance appraisal may enable practitioners to develop strategies for improving performance appraisal in organizations.

IMPORTANCE OF FEEDBACK REACTIONS FOR DEVELOPMENT

The way employees react to their supervisor's feedback has been shown to be a key determinant of future employee motivation and development (Cawley, Keeping, & Levy, 1998). Keeping and Levy (2000) concluded that the reactions of feedback receivers are probably the best criterion to evaluate performance appraisal systems. Hence, it is not surprising that feedback reactions have already been examined in numerous organizational contexts (e.g., selection, 360°-feedback, assessment centres, etc…) (for an overview, see Anseel & Lievens, 2006). Theoretical models concerning the feedback process (e.g., Ilgen, Fisher, & Taylor, 1979) suggest that two types of feedback reactions are important in determining employee development after feedback, namely feedback acceptance and perceived feedback utility. Feedback will result in development and improved performance only if employees are willing to accept and use feedback for further development (Ilgen et al., 1979; Kinicki, Prussia, Wu, & McKee-Ryan, 2004).

DETERMINANTS OF FEEDBACK REACTIONS

PREVIOUS RESEARCH

Previous research has identified several factors that determine feedback reactions. On the one hand, studies revealed that individual differences are important, indicating that, among others, factors such as emotional stability (e.g., Fletcher, Taylor, & Glanfield, 1996), self-efficacy (e.g., Atwater & Brett, 2005), core self-evaluations (e.g., Bono & Colbert, 2005) and goal orientations (e.g., Crown, Slocum, VandeWalle, & Fu, 2005) seem to have an impact on feedback reactions. On the other hand, many situational factors have been found to influence reactions following feedback. Credibility of the feedback source (e.g., Fedor, Davis, Maslyn, & Mathieson, 2001), and the specificity, consistency and format of the feedback message (e.g., Atwater & Brett, 2006; Davis, Carson, Ammeter, & Treadway, 2005; Stone & Stone, 1985) are examples of such situational factors.

Although all these factors have been found to influence feedback reactions, probably the most important factor in feedback interventions is the sign of the feedback message (Anseel & Lievens, 2006). Feedback sign

(favorable or unfavorable) is important because it has a tremendous influence on how employees respond to performance appraisals (Landy & Farr, 1980). This finding is in line with the assumptions of "self-enhancement" theory, which asserts that individuals react more favorably to positive appraisals than they do to negative appraisals (Schrauger, 1975). People are motivated to elevate the positivity of their self-conceptions and will do anything to protect their self-concepts from negative information. People are concerned with increasing the positivity of the self as a means for achieving a high level of self-esteem (Sedikides & Strube, 1997). In organizational research, this assumption has also been supported: positive feedback leads to more favorable employee feedback reactions, whereas negative appraisals cause dissatisfaction (Anseel & Lievens, 2006; Bannister, 1986; Brett & Atwater, 2001; Facteau, Facteau, Schoel, Russel, & Poteet, 1998; Halperin, Snyder, Shenkel, & Houston, 1976; Illies, De Pater, & Judge, 2006; Stone & Stone, 1985; Tonidandel, Quiñones, & Adams, 2002). Although feedback sign is an important predictor of employee reactions towards feedback, it does not offer many developmental strategies for practice. Thus, besides feedback sign, it is important to look for situational factors that can be controlled by the organization. Given the great importance of feedback sign as a predictor of feedback reactions, this factor will be included as a control variable in all analyses.

PROCEDURAL JUSTICE PERCEPTIONS

The fairness of performance appraisals has been identified as an important criterion in judging their effectiveness and utility for organizations (Erdogan, 2002). Research investigating the effects of justice in organizations is typically grouped under the name organizational justice theory (Greenberg, 1987, 1990). Colquitt (2001) investigated the dimensionality of organizational justice and found evidence for four distinct types of justice. In the organizational justice literature, initially a distinction was made between distributive justice and procedural justice (Adams, 1965; Deutsch, 1975; Homans, 1961; Leventhal, 1976). Later on researchers introduced two other factors of organizational justice, namely interpersonal and informational justice, that are both grouped under the name 'interactional justice', defined as the interpersonal treatment people receive

as procedures are enacted (Bies & Moag, 1986). Distributive justice deals with the fairness of the distribution of tangible outcomes. Conversely, procedural justice focuses on the fairness of the procedures to achieve those outcomes (Greenberg, 1987, 1990; see Bies & Moag, 1986, for other justice principles). In other words, procedural justice refers to the fairness perception of the means by which outcomes are allocated, but not necessarily to the outcomes themselves (Cropanzano, Bowen, & Gilliland, 2007). An important requirement for feedback to be accepted is that the procedures used during performance appraisal are perceived to be fair and just (McDowall & Fletcher, 2004). If an employee is treated fairly by a supervisor or an organization, he or she is more likely to perceive the feedback to be accurate (Leung et al., 2001; Reis, 2002). Various studies have confirmed that procedural justice is important in the context of performance appraisals. In the 1970's, researchers found that many employees perceived their organization's performance appraisal to be unfair (Levine, 1975). Furthermore, employees perceived the appraisal system to be fairer when they got the opportunity to express their feelings ('voice') (Landy, Barnes, & Murphy, 1978). Recent studies (Jawahar, 2007; Kavanagh, Benson, & Brown, 2007; Roberson & Stewart, 2006) have provided further evidence that in a performance appraisal context there is a positive relationship between procedural justice and the motivation to improve performance following performance appraisal. From a practical perspective, we expect procedural justice to be the type of justice that is most controllable by the organization. Organizations can easily control the procedures by which employees receive feedback, or standardize rules as to how performance appraisals should be conducted. Because of this and the aforementioned evidence concerning procedural justice in shaping reactions to feedback, in these studies we will focus solely on investigating the relationship between this type of justice, relationship quality and feedback reactions.

RELATIONSHIP QUALITY

Research suggests that, in addition to fairness, a good relationship between employees and the supervisor providing feedback is crucial for feedback acceptance. In this regard, leader-member exchange theory refers to

the quality of the relationship between supervisor and subordinate (Graen & Scandura, 1987). This theory suggests that supervisors determine what role employees will fulfil in the organization (Graen, 1976). These roles define the quality of the relation between supervisor and subordinate (Lind & Zmud, 1991, 1995). According to the LMX-model (Dienesch & Liden, 1986; Liden, Sparrowe, & Wayne, 1997), employees who are trusted by the supervisor are allocated more important roles to fulfil than employees whom the supervisor has a less favorable relationship with. In one of the first studies examining this relationship, LMX was found to be an important predictor of employees' reactions to performance feedback: Employees who reported a personal and trusting relationship with their supervisors, reported more positive reactions to feedback, while an impersonal and less trusting relationship between supervisor and subordinate led more to negative reactions (Snyder, Williams, & Cashman, 1984). Kacmar, Zivnuska, Witt and Gully (2003) found in a study of 188 private sector workers that employees in a high-quality LMX relationship received higher performance appraisals than employees in a low-quality LMX relationship. In a sample of managers, Russel and Goode (1988) reported that satisfaction with the supervisor was related to performance appraisal satisfaction. Giles and Mossholder (1990) also reported a high correlation (r = .61) between supervisory satisfaction and performance appraisal satisfaction (see also Jawahar, 2006).

MEDIATION HYPOTHESIS

Although there seems to be relative consensus that both relationship quality and justice perceptions play an important role in shaping feedback reactions after performance appraisal, less is known about the specific interplay of these two factors in determining feedback reactions (e.g., van Knippenberg, De Cremer, & van Knippenberg, 2007). One group of studies suggests that high procedural justice is an antecedent of high relationship quality. Leung et al. (2001), for example, examined whether high interpersonal justice, which is often considered to be an aspect of procedural justice (Bies & Moag, 1986; Tyler & Bies, 1990), has an impact on an employee's attitude towards his or her supervisor. In two studies, fair feedback led to a more favorable attitude towards

the supervisor, and both these variables were related to feedback acceptance. These findings provide support for the assumption that procedural justice can improve employees' relationship with the supervisor.

Another stream of studies suggests that high-quality relationship may be associated with honest and just behavior by the supervisor. Elicker et al. (2006) found evidence for a relationship in this direction. They developed a theoretical model of justice perceptions during the feedback process and found that the relationship between relationship quality and feedback reactions was mediated by the perception of voice in the appraisal process and the perception of distributive, interactional and procedural justice. Thus, favorable feedback reactions following performance appraisal in a high-quality relationship could be ascribed to how employees were treated during the performance appraisal and the subsequent justice perceptions. Because these findings were based on cross-sectional data, we should, of course, be careful in drawing any conclusions about causal relationships (see Elicker et al., 2006).

Finally, Sparr and Sonnentag (2008) found that LMX was a mediator in the relationship between justice perceptions and employee well-being following the feedback process. They found that procedural justice (besides distributive, interpersonal and informational justice) led to improved LMX, which, in turn, increased subordinate well-being. As in the study by Elicker et al. (2006), true causality between fairness and LMX could not be concluded. Drawing on these findings, we will explore whether the relationship between procedural justice perceptions and feedback reactions is mediated by relationship quality. The following hypothesis is formulated:

> *Hypothesis 1a*. The positive relationship between procedural justice perceptions and feedback acceptance and perceived utility will be mediated by relationship quality.

MODERATION HYPOTHESIS

As discussed above, although studies have shown that relationship quality and perceived justice are important elements in feedback reactions following performance appraisal, few studies have examined how these factors are

interrelated and exert an influence on feedback reactions. In previous studies examining the link between relationship quality and procedural justice, the correlation between both variables ranged from .38 to .50 (Elicker et al., 2006; Masterson, Lewis, Goldman, & Taylor, 2000; Sparr & Sonnentag, 2008). This correlation suggests that, although these variables are highly related, the effects of relationship quality and procedural justice on feedback reactions are by no means identical, and the interaction effect between both these variables may also be important. So, from an empirical point of view, apart from a mediated path through relationship quality, we believe that the effect of procedural justice on feedback reactions might also be moderated by the level of relationship quality.

This moderated relationship is not only possible from an empirical point of view, but theoretical work also seems supportive of such a relationship. Relational theories of procedural fairness for example predict that fair procedures signal to the employees that they are respected and accepted by group members (De Cremer & Tyler, 2005; Tyler & Blader, 2000, 2003). In this manner, procedural fairness is interpreted as a social influence process and there exists considerable evidence that people are more influenced by people that are alike or that are valued by them than by other people (Goethals & Nelson, 1973). This leads us to expect that procedural fairness will have more pronounced effects with low levels than with high levels of relationship quality. If employees do not have an a priori good relationship with their supervisor, the signalling function of fair procedures may become more important. Based on these insights from organizational justice theory we expect that a subordinate who has an unfavorable relationship with the superior (low relationship quality), but who feels that the performance appraisal was correctly conducted (high procedural justice), will be satisfied with the feedback and be more willing to accept and use it. From a practical perspective, high procedural justice seems to protect the subordinate from unfair negative feedback ratings from a malicious rater or from any unwanted ‘political’ rating behavior that would arise during the performance appraisal process. Conversely, we expect that, in case everything did not go according to the rules during performance appraisal (low procedural justice), this can be compensated by a good supervisory relationship (high relationship quality). When procedural justice is low, the amount of

relationship quality the employee has towards the supervisor can provide the employee with the certainty that the feedback received will not be disproportionately unfair. Having a good relationship with one's supervisor may appear to be a good protection to 'political games' in performance appraisal. In short, we expect feedback acceptance to be especially low when perceived justice is low *and* when relationship quality is low. When perceived justice is high *or* relationship quality is high, we expect more favorable feedback reactions. Hence, we propose the following hypothesis:

> *Hypothesis 1b.* The positive relationship between performance appraisal justice perceptions and feedback acceptance and perceived utility will be moderated by relationship quality. This positive relationship will be more pronounced for subordinates in a low-quality relationship with their supervisor than for subordinates in a high-quality relationship.

STUDY 1

The first study was conducted in a local division of a multinational global technology company. More specifically, we measured employee perceptions of feedback after they went through a performance appraisal discussion. In this first study, we focused on feedback acceptance as the dependent variable.

METHOD

PARTICIPANTS AND PROCEDURE

In the company we conducted this study, all employees have an annual performance appraisal review in which they receive feedback by their direct supervisor on their achievements of the last year. We informed 565 employees about the study via e-mail. The next week a cover letter discussing the study and containing an internet link to the actual questionnaire was e-mailed to the employees. Study participation was voluntary. Two hundred and nineteen employees completed the questionnaire, yielding a response rate of 37.17%.

Most of the participants were men (82.6%) and the participants' ages ranged from 18 to 65 years (M = 30). Participants had an average tenure of 10

years in the company (*SD* = 8) and an average experience of 6 years in their current position (*SD* = 6). Most of the participants (62%) had their last performance appraisal review eight months prior to the study and 8% had their last performance appraisal review 20 months prior to the study. The performance appraisal review for the other 30% of the respondents took place between 21 and 25 months prior to the study.

MEASURES

Control variables. Several studies found that the longer people work for an organization, the less open they are towards receiving feedback. In other words, these studies found that organizational tenure is negatively related to feedback seeking behavior (Ashford, 1986; Ashford & Cummings, 1985; VandeWalle, Challagalla, Ganesan, & Brown, 2000). Given these findings, years of tenure in the company, years of experience in the current position, and the moment of the last performance appraisal review were included as control variables in our analyses. These variables were assessed with single item measures that asked participants how many years of tenure they had in the organization, how many years of experience they had in their current position, and when they had been given their last performance appraisal review. Gender and age were also included as control variables. In addition, we controlled for feedback sign in the first step of the regression as previous research indicated that negative feedback engenders unfavorable feedback reactions (Anseel & Lievens, 2006). We used three items to measure positive feedback and three items to measure negative feedback (Steelman, Levy, & Snell, 2004). Respondents were asked to respond to these items using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items are '*When I do a good job at work, my supervisor praises my performance.*' for positive feedback and '*In the performance session my supervisor tells me when my work performance does not meet organizational standards.*' for negative feedback. Internal consistency was .83 for positive feedback and .82 for negative feedback.

Procedural justice. A four-item procedural justice scale developed by Keeping, Makiney, Levy, Moon and Gillette (1999; see Keeping & Levy, 2000)

was used. This procedural justice scale is specific to the performance appraisal context. Responses were made on a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item from this scale is '*The procedures used to evaluate my performance were fair*.' The internal consistency of this scale was .96.

Leader-member exchange (LMX). To measure the quality of exchange between supervisors and subordinates, we used the seven-item Leader-Member Exchange (LMX7) scale (Scandura & Graen, 1984). The LMX7 scale focuses on the nature of the general working relationship between an employee and his/her supervisor and is by far the most frequently used LMX measure (Gerstner & Day, 1997). In their meta-analysis, Gerstner and Day (1997) showed that the LMX7 measure has sound psychometric properties. The LMX measurement consisted of seven questions with 5-point Likert-type scales, with 1 indicating a bad relationship with the supervisor and 5 indicating a good relationship with the supervisor. A sample item is '*How would you characterize your working relationship with your supervisor?'*. The internal consistency estimate of this scale (.91) was similar to the one of previous studies (i.e. Elicker et al., 2006; Scandura & Schriesheim, 1994).

Feedback acceptance. Acceptance of feedback refers to employees' belief that the feedback given during the performance appraisal review is an accurate portrayal of his or her performance (Ilgen et al., 1979; Kinicki et al., 2004). We used six items of Stone, Gueutal and McIntosh's (1984) measure of feedback accuracy (Elicker et al., 2006; Keeping & Levy, 2000), which are typical items for measuring the extent to which employees perceived the evaluation as accurate. Employees indicated their responses on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item from this scale is '*The feedback was an accurate evaluation of my performance*.' The internal consistency of this scale in the current sample was .88.

RESULTS

Descriptive statistics, correlations, and internal consistency reliabilities for all study variables are presented in Table 1. We first conducted confirmatory factor analyses to examine the distinctiveness of our constructs (e.g., LMX, procedural justice and feedback acceptance) (see Table 2). In a first model all three observed variables were posited to load on a single latent factor. Conceptually, this model does not distinguish between the three observed variables. The second model hypothesized two distinct yet intercorrelated latent factors, wherein LMX and procedural justice were hypothesized to load on the first, and feedback acceptance on the second latent factor. Conceptually, this model distinguished between the two independent variables and the dependent variable. The third model hypothesized three distinct yet intercorrelated latent factors, wherein LMX was hypothesized to load on the first latent factor, procedural justice was hypothesized to load on the second latent factor, and feedback acceptance was hypothesized to load on the third latent factor. Conceptually, this model distinguishes between the three observed variables and considers them as measures for different constructs. The one- and two-factor models showed no outstanding fit to the data. Conceptually however, this could be expected as procedural justice and LMX are measuring different constructs and were hypothesized to load on one factor. The three-factor model, however, fitted the data significantly better than the one-factor model in both studies, showing that the three constructs were empirically distinct from each other.

Table 1

Means (M), Standard Deviations (SD), and Intercorrelations among Demographic, Control, Independent, and Dependent Variables in Study 1 (N=219)

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Gender												
2. Age			-.10									
3. Years of tenure in the company[a]	10.32	8.47	-.11	.74†								
4. Years of experience in the current position[b]	6.12	6.41	-.15*	.50	.64†							
5. Months since last performance review	8.84	5.63	-.09	.07	.10	-.02						
6. Positive feedback	4.85	1.30	.10	.10	.03	-.02	-.14*	(.83)				
7. Negative feedback	5.13	1.11	.06	.04	.01	-.03	-.12	.45†	(.82)			
8. Leader-member exchange[c]	3.63	0.79	.08	.08	.04	-.01	-.22**	.71†	.45†	(.91)		
9. Procedural justice	4.84	1.32	.17*	.03	.03	.01	-.18**	.51†	.37†	.54†	(.96)	
10. Feedback acceptance	4.89	1.15	.16*	-.01	-.02	-.07	-.15*	.61†	.48†	.63†	.67†	(.88)

Note. Internal consistency reliabilities are reported in parentheses on the diagonal.
[a, b] Experience was measured in number of years.
[c] Leader-member exchange quality was measured with a 5-point scale, the other variables were measured with a 7-point scale.
$^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$

Table 2

Summary of Fit Statistics of Measurement Models Tested

	χ^2	df	χ^2/df	*IFI*	*CFI*	*RMSEA*
Study 1						
One-factor model						
(All measures load on one factor)	841.99	119	7.08	.68	.67	.17
Two-factor model						
(Factor 1: LMX and Procedural justice)						
(Factor 2: Feedback acceptance)	656.89	118	5.57	.76	.76	.15
Three-factor model						
(Factor 1: LMX)						
(Factor 2: Procedural justice)						
(Factor 3: Feedback acceptance)	262.10	116	2.26	.94	.94	.08
Study 2						
One-factor model						
(All measures load on one factor)	315.37	77	4.10	.54	.53	.19
Two-factor model						
(Factor 1: Supervisory trust and Procedural justice)						
(Factor 2: Feedback utility)	171.07	76	2.25	.82	.81	.15
Three-factor model						
(Factor 1: Supervisory trust)						
(Factor 2: Procedural justice)						
(Factor 3: Feedback utility)	122.33	74	1.65	.91	.91	.09

Note. IFI = Bollen's incremental fit index; *CFI* = comparative fit index; *RMSEA* = root mean square error of approximation.

To test for the mediating effect of LMX (Hypothesis 1a), we used Baron and Kenny's (1986) multi-step regression procedure. We first controlled for the demographic and control variables and for feedback sign. Then, a 3-step analysis was conducted by (a) regressing the mediator (LMX) on the independent variable (procedural justice), (b) regressing the dependent variable (feedback acceptance) on the independent variable (procedural justice), and (c) regressing the dependent variable (feedback acceptance) on both the independent (procedural justice) and mediator (LMX) variables. According to Baron and Kenny (1986), in order for complete mediation to occur: (a) the independent variable must affect the mediator in the first equation; (b) the independent variable must be shown to affect the dependent variable in the second equation; (c) the mediator must affect the dependent variable in the third

equation; and (d) the independent variable must no longer be significant in the third equation. As can be seen in Table 3, the independent variable (procedural justice) significantly predicted the mediator (LMX) (β = .23, p < .001). Procedural justice also affected feedback acceptance (β = .45, p < .001), as did LMX when controlling for procedural justice (β = .22, p < .01). Furthermore, as can be seen in Table 3, the significant positive effect of the independent variable (procedural justice) did not disappear when the mediator (LMX) was taken into account (β = .40, p < .001). Thus, the independent variable (procedural justice) remains significant when including LMX. To further test the mediation effect, a direct test of the full mediational path (Procedural justice perceptions → LMX → Feedback reactions) was conducted using a Sobel test (Sobel, 1982). Results of the Sobel test showed that the indirect path from procedural justice to feedback acceptance (z = 2.52, p < .05) was significantly different from zero, which is indicative of mediation (Baron & Kenny, 1986). Hence, Hypothesis 1a was partially supported. The impact of procedural justice on feedback acceptance was partially mediated by LMX.

Table 3

Mediation Analyses of Procedural Justice, LMX, and Feedback Acceptance in Study 1 (N=219)

Dependent variable (DV)	Sobel test statistic	A (IV → Mediator)	B (Mediator → DV; IV controlled)	C (IV → DV)	C' (IV → DV; mediator controlled)
Feedback acceptance	2.52*	.23†	.22**	.45†	.40†

Note. IV = Procedural justice; Mediator = LMX. All paths are standardized betas. N = 219. Age, Gender, Experience, Moment of last performance review and Feedback sign were controlled for in all analyses. *p < .05, **p < .01, †p < .001

Next, we conducted a hierarchical multiple regression analysis to see whether the interaction term was significant as proposed by Hypothesis 1b. We again controlled for the demographic and control variables and for feedback sign in the first step. In the second step, the main effects of the two centered independent variables (i.e. LMX and procedural justice) were entered in the equation. Finally, in the third step the interactive term computed using the centered variables of LMX and procedural justice was entered. As shown in Table 4, feedback sign explained a significant and substantial amount of variance of feedback acceptance ($\Delta R^2 = .43$, $F(8,203) = 18.74$, $p < .001$). LMX and procedural justice perception explained a significant additional variance above these control variables ($\Delta R^2 = .16$, $F(10,201) = 28.44$, $p < .001$). As hypothesized, the interaction between LMX and procedural justice perception was also significant ($\beta = -.15$, $p < .05$) and explained 1% of the variance in feedback acceptance above the previous predictors ($\Delta R^2 = .01$, $F(11,200) = 26.87$, $p < .05$). Although 1% additional variance explained is rather modest, some authors (e.g., Aguinis, 1995 in Haworth & Levy, 2001; McClelland & Judd, 1993) noted that an interaction that accounts for as much as 2% of the variance is impressive for interactions in field studies, and that such trends, especially at an exploratory stage, should not be ignored. Based on this information, we believe it is warranted to conclude that even one additional percent of variance is notable.

Table 4

Summary of Hierarchical Regression Analysis of LMX and Procedural Justice on Feedback Acceptance in Study 1 (N=219)

		Feedback acceptance					
	Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	.12	.14	.04	.85	.40	.43†
	Age	-.08	.09	-.06	-.88	.38	
	Years of tenure[a]	.01	.01	.04	.56	.58	
	Years of experience[b]	-.01	.01	-.07	-1.16	.25	
	Months[c]	.01	.01	.02	.48	.63	
	Positive feedback	.18	.06	.20	2.95	.00**	
	Negative feedback	.15	.06	.14	2.80	.01**	
Step 2	LMX	.25	.11	.17	2.38	.02*	.16†
	Procedural justice	.28	.06	.32	4.92	.00†	
Step 3	LMX x Procedural justice	-.10	.05	-.15	-2.29	.02*	.01*

Note. $^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$. Regression coefficients are for the final step.
[a] Years of tenure in the company; [b] Years of experience in the current position; [c] Months since last performance review

Hypothesis 1b predicted that the positive relationship between justice perceptions in performance appraisal and feedback acceptance is moderated by LMX and that this positive relationship would be more pronounced for employees in a low-quality LMX relationship. To determine if the pattern of the interaction was consistent with our hypothesis, we plotted the interaction in Figure 2 where low LMX was presented as the mean of LMX - 1*SD*, and high LMX was presented as the mean of LMX + 1*SD* (see O'Connor, 1998). In addition, simple slopes analyses were performed through special macros developed by O'Connor (1998). The standardized regression coefficients of the simple slopes were $\beta = .52$ ($p < .001$) for low LMX and $\beta = .38$ ($p < .001$) for high LMX: they are thus both positive and significantly different from 0. As can be seen from Figure 2, the low-LMX slope is, as hypothesized, a little bit steeper than the high-LMX slope, though it is clear that this difference is quite small. As predicted by Hypothesis 1b, Figure 2 reveals that the relationship between procedural justice and acceptance of feedback was slightly more pronounced for

individuals with low LMX. In conclusion, the results from this first study thus show support for a (partially) mediated as well as a moderated model as both Hypothesis 1a and 1b were supported.

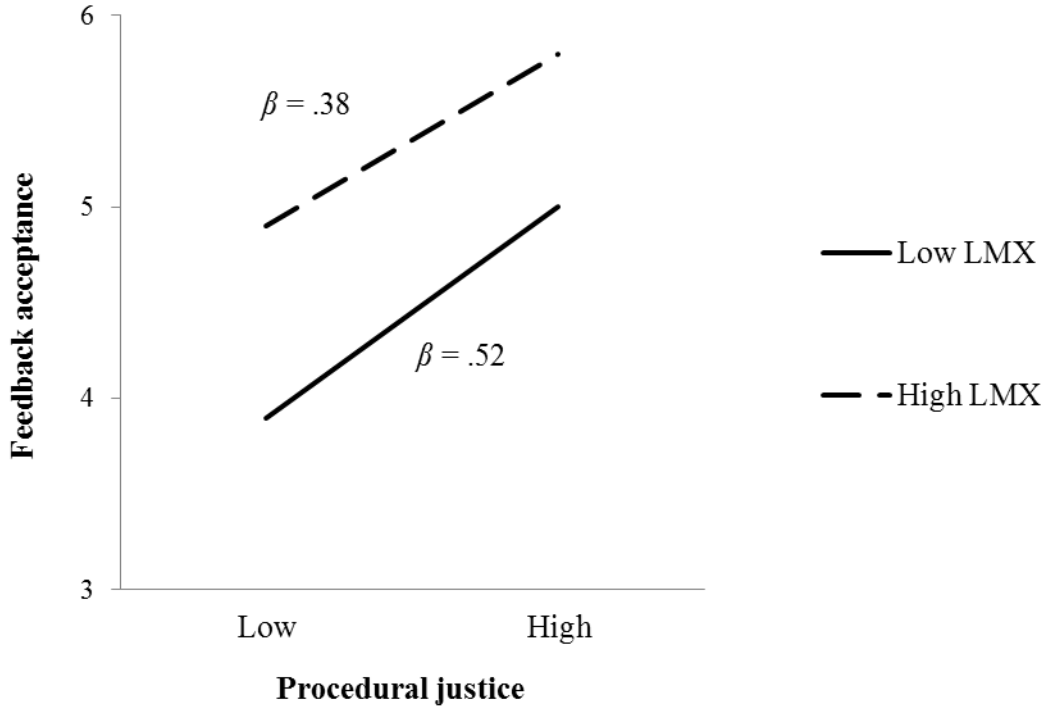

Figure 2. *Interaction of LMX and Procedural Justice on Feedback Acceptance*

STUDY 2

To examine the generalizability and robustness of the results obtained in Study 1, we tested our hypotheses in a different context. In Study 2, we examined reactions on received feedback from performance monitoring in a call centre. In performance monitoring, supervisors monitor how their employees perform by observing, examining, and/or registering their work behaviors, with or without technological assistance (Brewer & Ridgway, 1998; Stanton, 2000). In this context, calls were monitored by supervisors according to fixed procedures and employees received feedback afterwards. Electronic performance monitoring is making strong inroads in practice. For instance, more than 65% of companies surveyed by the American Management Association used employee monitoring or surveillance (Orthmann, 1998), and over 75% of large American companies electronically monitor their employees (Alder, 2001).

As shown by Brewer and Ridgway (1998), monitoring seems to play an important role in the development and maintenance of effective work performance. For performance monitoring to be effective, it is crucial that employees are satisfied with the performance appraisal review system and perceive it as fair (Stanton, 2000).

Research revealed that employees express fear towards performance monitoring if it is unclear how the data will be used (Stanton & Julian, 2002). These results point to the importance of feedback in a performance monitoring context. In addition, performance monitoring is one of the forms of performance appraisal that leads to the most stress among employees (Hedge & Borman, 1995). Therefore, perceived feedback utility by employees is crucial in such a context. Thus, conducting this second study allowed us to test our hypotheses with perceived feedback utility as the dependent variable.

METHOD

PARTICIPANTS AND PROCEDURE

The study was conducted in a Belgian market research company. The company has its own call centre where employees call consumers to inquire information about certain products or services. During the data collection period, 135 employees worked for the call centre of which 30 came to the centre on a daily basis. The questionnaire was administered with a web-based (intranet) survey. Questionnaires were completed by 90 employees. Due to a technical problem with the intranet that was solved within one day, 7 questionnaires could not be used for further analyses (response rate = 61.48%).

Most of the respondents were female (54.2%) and the respondents age varied from 18 to 57 years (M = 23, SD = 6). Experience is expressed here as the number of shifts the employees had worked in the call centre. In this call centre, employees can work in a morning or evening shift. Employees' experience varied from 4 to 792 shifts, with an average of 157 (SD = 195).

MEASURES

Control variables. As in Study 1, we controlled for experience (expressed in number of shifts) and feedback sign (positive/negative) of the last performance appraisal review, in addition to demographic variables (gender and age). Performance appraisals were gathered on review cards. These cards consist of 28 items which are scored by the rater with -1 (*bad*), 0 (*average*) or +1 (*good*). The individual item scores were added up and a total evaluation score was formed, ranging between -28 and +28. The feedback was mainly negative when the total score was negative and mainly positive when the total score was positive. Sample items used in the performance appraisal are '*marking answers'*, '*improvisation ability'*, and '*pronunciation'*.

Procedural justice. According to Williams and Levy (1998), the perceived justice of the performance appraisal is determined by the insight one has in the performance appraisal system. The authors report a correlation of .54 between system knowledge and perceived justice. This led them to the conclusion that system knowledge is an important antecedent for procedural justice. In accordance with Williams and Levy (1992), we also use the Perceived System Knowledge (PSK) or the knowledge of the performance appraisal system as an indicator of perceived procedural justice. We used seven items of the scale developed by Williams and Levy (1992) that were specific to the current context. Respondents rated their agreement with each statement using a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item from this scale is '*I understand how the performance appraisal system works'*. The internal consistency of this scale was .71. However, a confirmatory factor analysis found a better fit of the data when this variable was measured using six instead of seven items. Therefore, we omitted one item from this scale and conducted our analysis with the six remaining items. The internal consistency of the six-item scale was .75.

Supervisory trust. We used four items (Korsgaard & Roberson, 1995) to measure the level of trust respondents have in their supervisor. This measure allowed us to assess the quality of exchange between supervisors and subordinates. Employees responded to the items using a 7-point Likert-type

scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The internal consistency of this scale was .84. A sample item is '*I trust my manager*'.

Feedback utility. Perceived utility was measured with four items developed by Greller (1978). Each item was rated on a four-point scale: (1) *I do not feel this way at all, not at all*, (2) *I feel somewhat like this, a little*, (3) *I feel generally like this, pretty much* and (4) *I feel exactly this way, completely*. The internal consistency of this scale was .91. A sample item is '*The appraisal helped me learn how I can do my job better*'.

RESULTS

Table 5 presents the descriptive statistics, correlations, and internal consistencies of the Study 2 variables. In this study we conducted the same confirmatory factor analyses on the constructs measured as we did in Study 1. Here as well, a three-factor model fitted the data significantly better than a one-factor model: the assumed independence of the constructs measured was thus supported in this study as well. Results of these analyses can be found in Table 2. As was already mentioned, these analyses showed that a better fit was obtained when 'procedural justice' was measured using six instead of seven items. Thus, one item was omitted from the procedural justice scale.

Table 5

Means (M), Standard Deviations (SD), and Intercorrelations among Demographic, Control, Independent, and Dependent Variables in Study 2 (N=83)

	M	*SD*	1.	2.	3.	4.	5.	6.	7.
1. Gender									
2. Age			-.28**						
3. Tenure[a]	157.13	194.93	-.30**	.47†					
4. Feedback sign	15.99	9.43	-.24*	.26*	.23*				
5. Supervisory trust	4.82	1.00	-.21	.19	.02	.11	(.84)		
6. Procedural justice	5.36	0.84	-.07	.23**	.20	.11	.39†	(.75)	
7. Feedback utility	2.85	0.77	.02	.04	.06	.25*	.37†	.31†	(.91)

Note. Internal consistency reliabilities are reported in parentheses on the diagonal.
[a] Tenure was measured in number of shifts. *$p < .05$, **$p < .01$, †$p < .001$.

To test Hypothesis 1a we conducted the same mediation analysis as in Study 1. In the first step, we controlled for the demographic variables and feedback sign (see Study 1). As can be seen from Table 6, justice was significantly related to supervisory trust ($\beta = .38$, $p < .01$) and to feedback utility ($\beta = .31$, $p < .01$). Supervisory trust significantly predicted feedback utility, controlling for justice ($\beta = .32$, $p < .01$). The addition of the mediator reduced the size of the direct effect of justice on feedback utility ($\beta = .19$, $p > .05$) and reduced the effect to non-significance, suggesting full mediation. We again conducted a Sobel test of the mediational path (Justice → Supervisory trust → Feedback utility). Results showed that the indirect path from justice to feedback utility ($z = 2.22$, $p < .05$) was significantly different from zero. These results imply that the independent variable (justice) affects the dependent variable (feedback utility) indirectly, through the mediating variable (relationship quality). Thus, Hypothesis 1a was supported.

Table 6

Mediation Analyses of Procedural Justice, Supervisory Trust, and Feedback Utility in Study 2 (N=83)

Dependent variable (DV)	Sobel test statistic	A (IV → Mediator)	B (Mediator → DV; IV controlled)	C (IV → DV)	C' (IV → DV; mediator controlled)
Feedback utility	2.22*	.38**	.32**	.31**	.19

Note. IV = Procedural Justice; Mediator = Supervisory Trust. All paths are standardized betas. Age, Gender, Experience and Feedback sign were controlled for in all analyses.
*$p < .05$, **$p < .01$

Next, we conducted a hierarchical multiple regression analysis to examine Hypothesis 1b. As in Study 1, we controlled for the demographic variables and feedback sign in the first step. As can be seen in Table 7, the interaction term reached significance (β = -.56, $p < .05$) and the model with the interaction variable explained significantly more variance than the model with only the main effects of procedural justice and trust ($\Delta R^2 = .05$, $F(7,75) = 4.28$, $p < .05$). This means that the level of trust in the supervisor moderated the relationship between procedural justice and feedback utility.

Table 7

Summary of Hierarchical Regression Analysis of Supervisory Trust and Procedural Justice on Feedback Utility in Study 2 (N=83)

		Feedback utility					
	Variable	*b*	*SE(b)*	ß	*t*	*p*	ΔR^2
Step 1	Gender	.23	.16	.15	1.40	.17	.07
	Age	-.01	.02	-.06	-.51	.61	
	Tenure	.00	.00	.01	.08	.94	
	Feedback sign	.02	.01	.21	2.05	.04*	
Step 2	Supervisory trust	.55	.16	.71	3.47	.00†	.17†
	Procedural justice	.36	.13	.39	2.74	.01*	
Step 3	Supervisory trust x Procedural justice	-.21	.09	-.56	-2.26	.03*	.05**

Note: $^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$
Regression coefficients are for the final step.

To determine whether this interaction was consistent with our hypothesis, as in Study 1 we used the O'Connor (1998) method. Here as well, the standardized regression coefficients of the simple slopes were calculated using the special macros developed by O'Connor (1998): only the one for low supervisory trust appeared to be significantly different from 0, namely $\beta = .46$ ($p < .01$). The high-trust coefficient did not reach significance: $\beta = -.03$ ($p > .05$). As can be seen from Figure 3, the low-trust slope is indeed steeper than the slope for high supervisory trust as the high-trust slope is not significantly different from zero. Figure 3 thus reveals that there is a positive relationship between feedback utility and justice if there is a low level of trust in the supervisor. When the employees have little trust in their supervisor, the perceived justice of the performance appraisal system has to be high to consider the feedback as useful. Thus, feedback is considered as useful if one of both predictors is high. Hence, Hypothesis 1b is supported in Study 2. In sum, results of Study 2 were also in support for both a mediated and a moderated model.

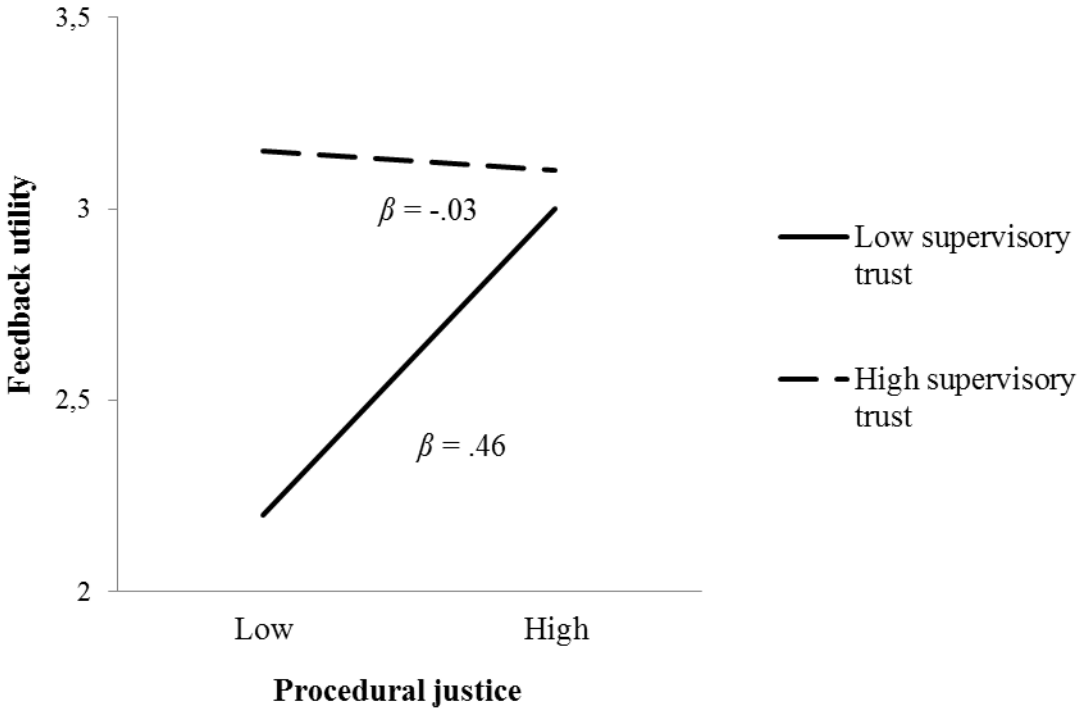

Figure 3. *Interaction of Supervisory Trust and Procedural Justice on Feedback Utility*

DISCUSSION

The present study's aim was to examine organizational factors that may enhance feedback reactions in performance appraisal because feedback reactions are an important condition for employee development. On the basis of recent feedback literature, we expected two variables to be of main importance: on the one hand, the quality of the relationship with the supervisor, and on the other hand the perception of procedural justice. We explored two alternative models (a mediation and a moderation model) that may explain the interplay between procedural justice, relationship quality, and feedback reactions.

Across the two field studies, we found evidence for a (partially) mediated relationship between procedural justice and feedback reactions through relationship quality as hypothesized in previous models. Furthermore, the results of the two studies indicated that a moderated model (i.e. an interactive effect of procedural justice and relationship quality) explained a significant amount of variance in the dependent variables. Thus, the interplay between the variables under study suggests that, in line with our theoretical underpinnings, a

moderated effect might also be a viable mechanism relating procedural justice to feedback reactions. Interpreting this moderated model shows that in order for feedback to be considered as useful and acceptable, it is necessary to have a perception of high procedural justice, especially when the quality of the relationship with the supervisor is low. That is, high justice can compensate for a low level of relationship quality: when the quality of the relationship with the supervisor is low, feedback will be more considered as useful when there is high procedural justice. It seems that when employees have a lower level of relationship quality, they are more influenced by perceptions of high procedural justice than when relationship quality is high. In this sense it seems that a high level of procedural justice becomes more important when there is a low level of relationship quality, supporting our hypothesis. The fact that these results were found in two different studies examining two different types of performance appraisal systems and using different operationalizations of the variables, adds to the robustness and generalizability of our results.

Given that both models were to a large extent supported in both studies, this leaves us in a difficult position to draw conclusions. Both models might be viable explanations for the interrelationships under study as our current results do not allow one to conclude that one model fits the data better than the other. Therefore, we believe the value of this study lies in its demonstration of the need for more additional empirical and theoretical work refining the effects of relationship quality and justice in performance appraisal. Our findings imply that it might be useful to go beyond the assumed mediated relationships between both variables and feedback reactions, and that their effects may be to some extent interdependent. However, our results clearly await further replication. Future research should therefore scrutinize possible interactive effects.

IMPLICATIONS FOR PRACTICE

Our results may also have important implications for organizational practice. The two variables that influence feedback acceptance, namely relationship quality and procedural justice, are controllable by organizations. Thus, organizations can plan interventions to improve relationship quality as well as (perceptions of) justice. Supervisors, for example, can be trained in

building a better relationship with their employees, and companies can stimulate activities that increase mutual trust (e.g., social activities). Giving employees the opportunity to express their feelings and giving them voice may help in creating a procedural justice climate. Furthermore, supervisors can be trained in the correct use of the procedures and criteria relevant for feedback giving (e.g., consistently applying transparent appraisals).

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Of course, given the limitations of our research design, we have to be careful when drawing conclusions. A first limitation is that both studies were conducted using a cross-sectional design. Therefore, it is impossible to draw causal connections between the different variables. As suggested by Elicker et al. (2006), longitudinal and experimental studies are necessary to extend the current knowledge regarding procedural justice, relationship quality, and feedback reactions. A second drawback is our reliance on self-reported measures. Although subjective perceptions and feelings are important, our results need to be confirmed by using objective measures of feedback utility and accuracy, relationship quality, and justice. In addition, we did not use an actual measurement of the subsequent employee development. Clearly, an examination of the degree to which employees take the feedback they receive into account and actually participate in development activities is an important issue for future research. Furthermore, we used a global measure of procedural justice. Future research might investigate the relationship between the separate components of procedural justice and feedback reactions. Finally, we considered only relationship quality as a leadership characteristic. It would be interesting to investigate whether other leadership characteristics are also related to feedback reactions. One such characteristic for example could be charismatic leadership. One feature of a charismatic leader is that (s)he communicates high performance expectations to employees, and expresses the confidence that these employees can attain those expectations (House, 1977; Shamir, House, & Arthur, 1993). Following this we expect that employees who work for a charismatic leader feel valued and respected, and will therefore be inclined to accept the feedback they receive from their leader. As the leader emphasizes his/her expectations,

employees will be confident that the feedback provided will be instrumental in reaching those expectations. For this reason, we expect that there might be a strong relationship between charismatic leadership and feedback reactions and that this variable may also compensate for low procedural justice.

CONCLUSIONS

In conclusion, in two studies we found that the effect of justice on feedback reactions in performance appraisal might not only be (partially) mediated by relationship quality, but that a moderated relationship is a viable explanation as well. Results from the moderated relationship show that for feedback reactions to be favorable it is important to have high procedural justice especially when relationship quality is low. On the one hand these findings show that further refinement of the current theoretical framework is necessary. On the other hand they offer organizations useful strategies for improving performance appraisal in practice.

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CHAPTER 4

IMPROVING FEEDBACK REPORTS: THE ROLE OF PROCEDURAL INFORMATION AND INFORMATION SPECIFICITY[1]

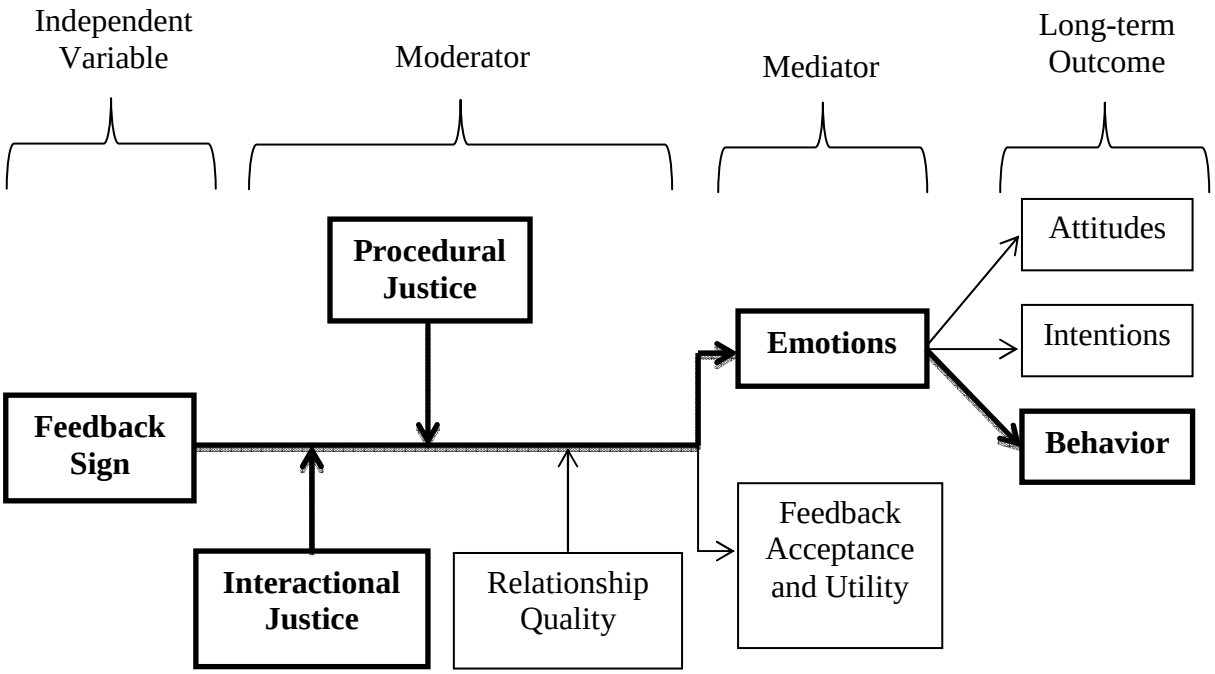

Figure 1. *Chapter 4 Situated in the Working Model of this Dissertation*

[1] Feys M., Anseel, F., & Wille, B. (2011). Improving feedback reports: The role of procedural information and information specificity. *Academy of Management: Learning & Education, 10,* 661-681.

ABSTRACT

We investigated the effects of varying two types of information in feedback reports on feedback reactions in the context of managerial skill development. We found that favorable reactions increased when a high amount of procedural information was given. Furthermore, unfavorable reactions diminished when participants received low specific information. Fifteen months after the assessment of feedback reactions, we also measured students' self-reported involvement in developmental activities and found a significant and positive relationship between favorable feedback reactions and developmental activities. These results provide useful suggestions for management educators to enhance feedback reactions in managerial skill development.

INTRODUCTION

A key challenge for educators is increasing learners' awareness of developmental needs to create a strong commitment to future developmental activities. A recent meta-analysis of self-assessments of knowledge in education and workplace training showed that learners' self-assessments correlated only moderately with actual cognitive learning, suggesting that self-awareness of developmental needs and progress remains a potential biasing factor in management education (Sitzmann, Ely, Brown, & Bauer, 2010). Interestingly, results further showed that self-awareness was considerably higher in education programs that provided external feedback to participants. This highlights the need for management education programs to include powerful feedback interventions that are designed to maximally increase self-awareness and developmental commitment in participants (e.g., Brutus & Donia, 2010; Sitzmann et al., 2010; Van Fleet, Peterson, & Van Fleet, 2005).

A large body of evidence suggests that one of the key factors to focus on when designing feedback interventions is how feedback recipients initially react to the feedback provided (e.g., Ilgen, Fisher, & Taylor, 1979; Ryan, Brutus, Greguras, & Hakel, 2000). When people feel good about the feedback they receive, they will be more open to act upon the feedback and engage more in future developmental activities than when they feel unhappy about the feedback. Thus, it seems crucial for research to develop and gain insight into practical

strategies that management educators can use during skill development to influence how feedback recipients react to feedback (Kluger & DeNisi, 1996; London & Smither, 1995).

One way to improve outcomes following feedback is by varying the type and amount of information provided in feedback reports (Brutus, 2009; Goodman & Wood, 2004a; Smither & Walker, 2004). Given the widespread practice of providing learners with customized feedback reports both in electronic and paper format (e.g., Brutus, 2009), a better understanding of the effects of different types and amounts of information in these feedback reports might lead to cost-effective and practical strategies to enhance feedback interventions in management education.

The overall purpose of this study was, therefore, to investigate the causal effects of different types of feedback reports on recipients' reactions to feedback. We argue that two types of information are crucial in a feedback report for determining reactions to feedback. A first type is information about the procedures used to generate feedback. Previous survey research suggests that perceptions of and knowledge about feedback procedures may be associated with initial reactions to feedback (e.g., Jawahar, 2007; Leung, Su, & Morris, 2001). A second type is information specificity. Some studies (e.g., Goodman & Wood, 2004a, 2004b) have shown that the specificity of feedback information provided in feedback reports impacts on subsequent task performance. We argue that the specificity of feedback information may also be helpful in understanding initial reactions to feedback messages. Therefore, in this study, a first objective is to examine the moderating effects of different levels of procedural information and information specificity on the relationship between feedback scores and favorable and unfavorable feedback reactions. By means of a field experiment, we aim to offer a better understanding of the causal effects of two information types in strengthening or weakening feedback reactions after feedback. As a second objective, we aim to examine the relationship between these initial feedback reactions and self-reported involvement in development activities 15 months later. If management educators are to be encouraged to focus on and enhance learners' initial reactions to feedback, it is important to demonstrate that these reactions are indeed predictive of future developmental

behaviors. As a guiding framework, an overview of all hypothesized relationships in this study are depicted in Figure 2. Note that we controlled for gender, positive affectivity, learning goal orientation and core self-evaluations in all analyses.

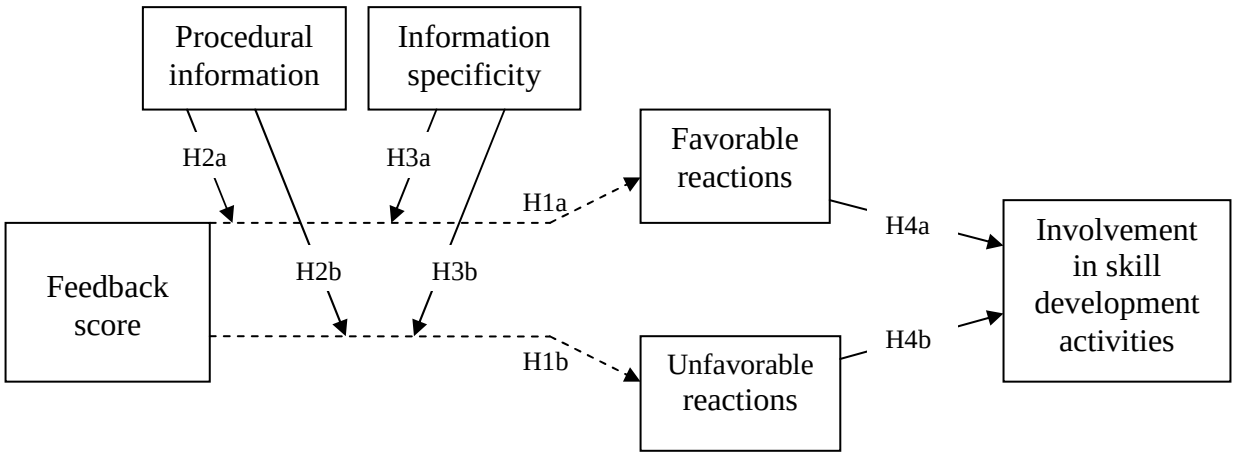

Figure 2. *Overview of the Proposed Relationships*

DETERMINANTS OF FEEDBACK REACTIONS

FEEDBACK SIGN

The determinant that has received most empirical support in feedback reactions research is the valence of feedback or feedback sign. Several studies have found that feedback recipients are more likely to react favorably to positive feedback than to negative feedback (Anseel & Lievens, 2006; Atwater & Brett, 2005; Brett & Atwater, 2001; Illies, De Pater, & Judge, 2006; Love, Love, & Northcraft, 2010). Paradoxically, this means that people who do not perform up to the required standards, will most likely receive negative feedback and react unfavorably to it. Thus, managers who need feedback the most in order to develop, are the ones who are most likely to react unfavorably. Explanations for these effects posit that feedback that is consistent with individuals' existing image of themselves, which is usually the case with positive information, will be processed uncritically and lead to positive emotions (e.g., Mitchell & Beach, 1990). Feedback that is inconsistent with the existing image on the other hand, which is usually the case with negative information, will not be easily accepted

and lead to negative emotions. Given the dominance of feedback sign on learners' reactions, studies of feedback reactions typically start from this basic relationship and then explore potentially influencing factors (e.g., Anseel, Lievens, & Schollaert, 2009; Atwater & Brett, 2005). In line with this approach, we will examine whether these main relationships, as represented in Hypotheses 1a and 1b (Figure 2), are moderated by procedural information and information specificity, and whether the two outcome variables, favorable and unfavorable feedback reactions, have an impact on involvement in skill development. Note that we conceptualized feedback reactions as two separate outcomes. Research in the emotion domain has shown that emotional reactions are best not seen as one-dimensional, but rather as two- or even multi-dimensional (Fontaine, Scherer, Roesch, & Ellsworth, 2007). In line with Atwater and Brett (2006), we thus distinguished favorable (e.g., happy, motivated) from unfavorable (e.g., worried, angry) feedback reactions. Conceptually, feedback reactions are assumed to be driven by learners' immediate affective response to the feedback message (i.c., satisfaction with feedback) more than their immediate affective evaluation of their own performance (i.c., satisfaction with performance) (Swann & Schroeder, 1995). Thus, we propose the following hypotheses:

> *Hypothesis 1a.* There will be a positive relationship between feedback score and favorable feedback reactions with higher scores leading to more favorable reactions.

> *Hypothesis 1b.* There will be a negative relationship between feedback score and unfavorable feedback reactions with lower scores leading to more unfavorable reactions.

TYPE AND AMOUNT OF INFORMATION

Ilgen and Davis (2000) suggested that the way in which (negative) feedback is framed and delivered may influence how recipients respond to the feedback. In response to this call, researchers have recently started to investigate the effects of type, amount and specificity of the information provided in feedback messages on performance and other feedback-related outcomes. For

instance, the use of numeric, normative, or text feedback (Atwater & Brett, 2006), the specificity of the feedback presented (Goodman & Wood, 2004b), the amount of comments and whether they contain behavior- or task-focused information (Smither & Walker, 2004) and whether feedback is precise (Brutus, 2009; Brutus & Facteau, 2003) are all characteristics that have been found to be important in determining outcomes of feedback and performance improvement. In a recent review, Brutus (2009) cogently concluded that "*the format in which feedback is presented probably matters a great deal because it is so intimately linked fundamental elements of the evaluation and communication of performance*" (p. 11).

To our knowledge, only one study so far has investigated the reactions recipients experience following feedback delivered in different feedback formats. The authors of this study found that recipients' reactions were more favorable after they had read numeric and normative feedback in contrast to text feedback (Atwater & Brett, 2006). This study provides preliminary evidence for our argument that variations in information characteristics presented in feedback messages can indeed shape recipients' reactions following feedback.

PROCEDURAL INFORMATION

A first important factor is information about the procedures used to determine a feedback score. Ilgen and Davis (2000) suggested that one possible cause for unfavorable reactions may be the attributions people make when receiving negative information. People will generally attribute positive feedback to internal controllable factors, whereas negative feedback will be mostly attributed to causes the individual has no control over. Individuals will thus only use negative feedback for development if they believe they can exert control over these behaviors, and if they are aware of the ways in which this feedback was gathered. Two cross-sectional studies have shown that people react more favorably to feedback messages if they report that they have insight into the procedures used (Jawahar, 2007; Leung et al., 2001). In other words, knowledge about how the information is gathered has an important influence on and can possibly determine how people react to feedback.

However, to date, most studies have measured people's perceptions rather than actively varied the amount of information (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001) making it difficult to draw strong conclusions. The present study extends this line of research by experimentally varying the amount of information participants receive in a personal feedback report. On the one hand, we expect that participants with a high feedback score will react more favorably and that receiving information about the procedures will enhance this positive effect. On the other hand, participants who receive a low feedback score will react more unfavorably, but receiving procedural information might diminish these unfavorable reactions. Hence, we expect that:

Hypothesis 2a. The positive relationship between feedback score and favorable feedback reactions will be moderated by procedural information. The positive relationship will be more pronounced for feedback recipients in the high procedural information group than for recipients in the low procedural information group.

Hypothesis 2b. The negative relationship between feedback score and unfavorable feedback reactions will be moderated by procedural information. The negative relationship will be more pronounced for feedback recipients in the low procedural information group than for recipients in the high procedural information group.

INFORMATION SPECIFICITY

Previous research further suggests that the specificity of the information provided in feedback messages can also shape reactions to feedback. Feedback specificity refers to the level of detail presented in feedback information messages. For instance, Goodman and Wood (2004a, 2004b) investigated the effects of specific feedback on learning, learning opportunities and exploration in two studies. In a lab environment, they found that increasing the specificity of feedback positively affected practice performance, although these benefits did not endure over time and depended on what was to be learned.

To date, research concerning the specificity of feedback has mainly focused on the effects of specific feedback on performance in a lab environment. A question that gained little attention is whether the augmentation of performance feedback has an impact on learners' reactions in the field. For recipients to believe they can actively change their performance and learn from feedback, causes for poor performance should be attributed to factors over which the actor has some control. We argue that if people feel they have control over their own performance, they will react more favorably to feedback, even if this feedback is negative. One way to facilitate the formation of such attributions is to convey to the recipient why the feedback provided is negative and to clarify that the key for development is in their own hands. When people receive negative feedback underpinned by more in-depth comments detailing exactly why their feedback was negative, these comments supply them with valuable and usable information as to how to improve their own performance. Hence, as feedback information specificity increases, so does its capability to perform its informational role (Goodman & Wood, 2004b). Thus, as feedback recipients receive more specific feedback, we expect that they will see more value in the feedback and that they will attribute the causes for their performance more to controllable factors, leading to more favorable reactions. Thus, we propose the following hypotheses:

> *Hypothesis 3a.* The positive relationship between feedback score and favorable feedback reactions will be moderated by information specificity. The positive relationship will be more pronounced for feedback recipients in the high specific information group than for recipients in the low or moderate specific information group.

> *Hypothesis 3b.* The negative relationship between feedback score and unfavorable feedback reactions will be moderated by information specificity. This negative relationship will be more pronounced for feedback recipients in the low or moderate specific information group than for recipients in the high specific information group.

INVOLVEMENT IN DEVELOPMENTAL ACTIVITIES

It is important to demonstrate that favorable feedback reactions are related to actual involvement in developmental activities. Although the assumption that favorable reactions automatically lead learners to engage in training and development activities (Kudisch, Ladd, & Dobbins, 1997; Smither, London, & Richmond, 2005) seems intuitively appealing, more empirical support is needed. As Bono and Colbert (2005) recently reported, satisfaction with feedback does not necessarily lead to commitment to one's development goals. Furthermore, a meta-analysis on the correlations among training criteria also revealed that affective reactions to training interventions do not correlate with actual learning or behavior change (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997).

Drawing from self-efficacy theory, we argue that favorable feedback reactions induce heightened self-efficacy (feeling good about oneself), which will in turn lead to more involvement in activities where one can potentially receive more positive feedback about oneself. In general, a situation that creates an environment supportive of learning and development should help to enhance both self-confidence for development and beliefs that favorable outcomes will result from that supported behavior (cf. Baldwin & Magjuka, 1997; Mathieu & Martineau, 1997; Maurer, 2001). This self-efficacy for development should subsequently be positively related to attitudes toward development activities. Research has further shown that self-efficacy is a key predictor of choosing to perform a behavior or pursuing a task as well as of persistence, thoughts, and feelings during the task (Bandura, 1997; Gist & Mitchell, 1992; Sadri & Robertson, 1993). Maurer, Weiss and Barbeite (2003) provided empirical support for the theoretical link between affective/motivational constructs such as favorable attitudes and behavioral outcomes such as participating and engaging in development activities.

In the current study, we focused on self-reported involvement in developmental activities 15 months after receiving feedback. Previous studies have shown that self-reported involvement in development activities is highly correlated with objective measures of involvement in developmental activities (e.g., estimates by organizational representatives; Zoogah, 2010). Finally, a

review of the literature shows that development behaviors are crucial for organizations as they facilitate achievement of individual (performance, compensation, and careers; Hall, 1996; Kozlowski & Farr, 1988; London & Smither, 1999; Noe, 1996) and organizational (productivity and return on investment; Maurer et al., 2003; Tharenou, Saks, & Moore, 2007) outcomes. Therefore, we propose the following hypotheses:

Hypothesis 4a. There will be a positive relationship between favorable feedback reactions and involvement in developmental activities.

Hypothesis 4b. There will be a negative relationship between unfavorable feedback reactions and involvement in developmental activities.

CONTROL VARIABLES

When introducing new interventions, it is important to show that they add value above and beyond what is already known. Therefore, we controlled for positive affectivity, learning goal orientation and core self-evaluations. First, positive affectivity refers to a relatively stable dispositional tendency for people to feel generally enthusiastic, active, and alert (Judge & Larsen, 2001; Watson, Clark, & Tellegen, 1988). Several studies found that people's affective disposition may have an impact on how they respond to performance feedback (Forgas & George, 2001). Hammer and Stone-Romero (1996) reported that feedback was perceived as more accurate when recipients' affective dispositions were consistent with the (un)favorability of the feedback. Other authors (Trope, Ferguson, & Ragunanthan, 2001) also showed that positive affectivity helps people to deal more effectively with the negative feedback they receive from others, by functioning as a psychological resource.

Second, research has shown that goal orientations influence how individuals interpret feedback and react to it (e.g., Payne, Youngcourt, & Beaubien, 2007). Individuals with high levels of learning goal orientation are inclined to seek feedback (e.g., Payne et al., 2007; Vandewalle & Cummings, 1997), to interpret feedback as useful and positive (e.g., Farr, Hofmann, &

Ringenbach, 1993), and to react negatively when receiving unfavorable feedback (Vandewalle, Cron, & Slocum, 2001).

Third, core self-evaluations are described as a broad, latent, higher-order trait indicated by three well-established traits in the personality literature, namely global self-esteem, trait-based self-efficacy and emotional stability/adjustment (Judge, Erez, Bono, & Thoresen, 2003). There is consistent research evidence that traits, such as self-esteem, affect how individuals respond to negative feedback (e.g., Brockner, Derr, & Laing, 1987; Ilgen et al., 1979). Furthermore, a recent study showed that more positive core self-evaluations are associated with higher satisfaction and stronger goal commitment after receiving feedback (Kamer & Annen, 2010).

METHOD

PARTICIPANTS AND PROCEDURE

The sample consisted of final year master students (N = 274) from different backgrounds (e.g., engineering, pharmaceutical sciences, economics, agricultural and plant sciences, educational sciences) from a large public university in Belgium enrolled in a class on managerial skill development. The sample consisted mostly of women (66.4%) and the participants' ages ranged from 21 to 48 years (M = 22.22).

Students attended a series of workshops on managerial skills (e.g., communication, feedback giving, negotiating, meeting, decision making and teamwork) over the course of six months. Given that this was a new course and we had no prior strong arguments regarding the information that needed to be provided in the feedback reports, this course offered an ideal opportunity to vary and test different types and amounts of information in an educational field setting focused on management skill development. All skill workshops were led by trained Psychology graduate students. For trainees, enrolment in the courses on managerial skills was voluntary and they received course credit for participation. Before enrolment in this course, all students were informed about the goals of this optional course and the importance of their motivation for managerial skill development. Students interested in following the course were hence aware that the workshops would enable them to better prepare themselves

for their future careers as junior managers. As participation was voluntary, people who chose to follow this course were genuinely interested in feedback about their managerial skill development and were likely to pursue a management career after graduation. We assessed this by using one item that asked participants what organizational position they aspired to after their graduation approximately six months after the course. The responses showed that 87.5% of the participants aspired to a managerial or executive function. At the start of the course, three months prior to the workshops (Time 1), all participants completed a number of online questionnaires assessing their teamwork and leadership styles for use in the actual training program. All six workshops consisted of practice exercises and role-plays, and during all of them, participants were closely observed by trained observers who rated their relevant behaviors. The observer training consisted of an intensive workshop in which a group of 15 to 20 students were instructed on how to use the checklists and how these were developed. They were also given numerous behavioral examples for all six skills in order to create a sense of concordance among the observers during the workshops they attended and observed. We developed behavioral checklists for each workshop so the observers could easily indicate the frequency of behavior displayed by the participants. Each checklist consisted of four items that were developed based on the behaviors that were typically elicited during the role-plays. The observers were asked to give each participant a score from 1 (= *totally disagree*) to 5 (= *totally agree*) on each item, and to indicate which overall score (1 = *extremely weak* to 5 = *excellent*) they would assign this participant on the particular managerial skill that was dealt with in the observed workshop. After they had attended all six workshops, participants received an e-mail with a personal feedback report (Time 2) with varying types and amount of information (see below) and several questions to assess their reactions about the feedback. Participants were asked to send back this feedback questionnaire one week after they had received their feedback report (Time 3). Finally, approximately 15 months after Time 3, all participants were contacted again and were asked to complete a questionnaire measuring their involvement in developmental activities over the year following the course (Time 4).

DESIGN

The between-persons study design consisted of two levels of procedural information (high versus low procedural information) and three levels of information specificity (high versus moderate versus low information specificity). Subjects were randomly assigned to the different groups, and group frequencies ranged from 20 to 25.

Procedural information. Participants in the high procedural information group received detailed information about the different raters and the rating process that was used for their personal feedback scores. This information was given in the e-mail they received as well as on the first page of their feedback report. For instance, the report read: "… several trained observers (all Psychology students) observed you during all six workshops. These observers used newly developed behavioral checklists for each workshop on which they were asked to indicate the frequency of behavior displayed by you during the exercises. You were thus evaluated on 24 different items during the course of the seminar." Participants in the low procedural information group were told that all scores were out of a maximum of five, and did not receive any other information.

Information specificity. Following Goodman and Wood (2004a), participants were randomly assigned to one of three information specificity groups (low, moderate, or high specific information). Similar to Goodman and Wood (2004a), in the low information specificity group, participants received outcome feedback only in the form of a quantitative performance feedback score with a brief explanation for each score that gave them the opportunity to quickly assess how they performed during the workshops (e.g., "You received a high score on 'teamwork', which indicates that you continuously cooperated with your teammates in an efficient manner during the teambuilding exercise. This means that you succeeded in working constructively on a common goal, and that you actively contributed to the team achievement."). We chose this group as the baseline information specificity group to see what effects the adding of information generated. In the moderate information specificity group, participants received the same outcome feedback as participants in the low information specificity group, but also standardized diagnostic feedback. This

means that, consistent with Goodman and Wood (2004a), we provided them with brief and standardized information on how they could perform better in a future situation (e.g., “You received a low score on ‘negotiating’. This means that you did not follow the rules for negotiating that are appropriate when negotiating with another party. People like you who achieved a low score on ‘negotiating’, are not yet capable to put into practice all the different aspects that are typical of an efficient negotiation. In the future, when negotiating, you should for instance try to strive for win-win solutions so that both parties are satisfied with the achieved results, you should respect the other party and be assertive when trying to explain the priorities of you and your party.”). For each workshop on managerial skills, participants were provided with standardized information about the things they typically did right and wrong during this particular workshop. All participants in these groups thus received the same additional information. Finally, in the high information specificity group, participants received the same outcome feedback that participants in the other groups received, supplemented by more specific feedback about how they behaved in the workshops with specific behavioral observations about the things they actually did right or wrong. In this group, the feedback message thus included actual observations of behavior displayed during the workshops and observed by the raters (e.g., “Apart from the high score you received on teamwork, observations also showed that you master this skill to great extent. It was noticed for instance that you actively helped the first team member that had to complete the exercise, and that you encouraged her when she was scared to go through the construction the team built. You also offered to hold the frame that held the construction so that this wouldn’t collapse during the exercise. Finally, you continually encouraged your team members during the course of the exercises, and helped them when necessary”). As the observed behaviors were idiosyncratic for each management trainee in the high information specificity group, their feedback reports did not contain exactly the same information. However, we believe this practice of providing actual examples of behavior corresponds most closely with organizational feedback practices in management education.

MEASURES

Control variables (Time 1). Positive affectivity was assessed by 10 items that are part of the Positive and Negative Affect Scale (PANAS; Watson et al., 1988). This scale consists of a number of words that describe different feelings and emotions. Respondents were asked to respond to these items using a 5-point Likert-type scale ranging from 1 (= *very slightly or not at all*) to 5 (= *extremely*). Sample words are '*Interested*', '*Strong*', '*Active*' and '*Proud*'. Internal consistency of this positive affectivity scale was .76. Learning goal orientation was assessed by four items developed by Vandewalle et al. (2001). Sample items are '*I often look for opportunities to develop new skills and knowledge'* and '*I enjoy challenging and difficult tasks at work where I'll learn new skills'*. Participants responded to these items on a 7-point Likert-type scale ranging from 1 (= *totally disagree*) to 7 (= *totally agree*). Internal consistency of this learning goal orientation scale was .83. Core self-evaluations were assessed by 12 items developed by Judge et al. (2003). Sample items are '*I complete tasks successfully*', '*I determine what will happen in my life'* and '*When I try, I generally succeed*'. Participants were asked to respond to these items on a 5-point Likert-type scale ranging from 1 (= *strongly disagree*) to 5 (= *strongly agree*). Internal consistency of this core self-evaluations scale was .84.

Feedback score (Time 2). Participants received feedback scores for each managerial skill they had trained during the workshops, namely communication, dealing with feedback, meeting, negotiating, decision making and teamwork. The highest possible overall score participants could receive for each managerial skill was 5 (= *excellent*), an average score was 3 (= *sufficient*), and the lowest possible feedback score was 1 (= *extremely weak*). Because participants were asked to describe their overall reactions towards the feedback they received, and not towards each feedback score separately, these different feedback scores were aggregated into one overall score for all workshops.

Feedback reactions (Time 3). Favorable and unfavorable reactions to feedback were measured using a scale developed by Atwater and Brett (2005). After reading their personal feedback report, participants were asked to indicate their reactions to feedback. For each of the 24 reactions, recipients indicated on a 5-point scale the extent to which they feel this way now, with 1 = *not at all*

and 5 = *extremely*. We factor analyzed the 24 reactions and two clear factors emerged. They represented favorable reactions on the one hand and unfavorable reactions on the other. The reactions that were part of Atwater and Brett's (2005) motivation factor all loaded on the factor favorable reactions in our sample. Favorable reactions included '*pleased'*, '*proud'*, '*happy'*, and '*informed'*. The alpha for this scale was .86. The unfavorable reactions scale included '*angry'*, '*frustrated'*, '*unhappy'*, and '*disappointed'*. The alpha for this scale was .73. Items were averaged to create scores for each of the two scales for each participant.

Manipulation checks and coding qualitative material (Time 3). After reading their feedback report, participants were asked, "*After reading your feedback report, what is the first thing you think about? Please write down as much as you can and want*". To check the procedural information and information specificity manipulations, we relied on these qualitative comments and examined whether there was a difference in the content and amount of comments made by participants regarding procedural information and feedback specificity. Two independent raters coded all comments made by participants on these two aspects on the two independent variables, using a bipolar coding scale ranging from 0 (= *lack of knowledge about the procedures/specificity of information*) to 2 (= *knowledge about the procedures/specificity of information).* Detailed coding rules for these two variables can be found in Appendix A.

From an exploratory perspective, we also coded qualitative comments on perceptions of (dis)satisfaction with feedback and (dis)satisfaction with performance. Again, two independent coders rated all comments made by participants on the same question as described earlier. All comments were coded using a bipolar coding scale ranging from 0 (= *dissatisfied*) to 2 (= *satisfied*). Detailed coding rules for these two variables can be found in Appendix A. We calculated Cohen's kappa for the concordance of the coded data (Cohen, 1960). Inter-rater agreement was .64 for satisfaction with performance and .95 for satisfaction with feedback.

Involvement in skill development activities (Time 4). We used a developmental activity scale developed by Smither et al. (2005) to measure participants' involvement in skill development activities 15 months after

receiving feedback. This scale consists of 14 items measuring to what extent participants used their feedback for further development. We adapted the items to the specific context of the current study. Respondents were asked to indicate to what extent they had engaged in certain behaviors during the year following the course. Participants responded to these items using a 5-point Likert-type scale ranging from 1 (= *never*) to 5 (= *regularly*). Sample items are '*To what extent did you look for additional information to further improve your skills?*', '*To what extent did you look for situations in which you could practice the skills?*' and '*To what extent did you try to apply your new-found knowledge in your job or study?*'. Internal consistency of this involvement in skill development scale was .88. To test for attrition effects, we compared feedback reaction scores and involvement in skill development scores of those who participated in this follow-up to the scores of those who dropped out. With regard to Time 2 feedback scores and Time 3 feedback reactions, no mean differences and thus no selectivity effects were found between continuers and dropouts.

RESULTS

Descriptive statistics, correlations, and internal consistency reliabilities for all measured variables are presented in Table 1. In all hierarchical regressions testing our hypotheses, we controlled for gender, learning goal orientation, positive affectivity and core self-evaluations in the first step. For Hypotheses 2a, 2b, 3a and 3b, we controlled for feedback scores and the main effect of the information manipulations (dummy coded) in the second step of our analyses. To enhance interpretation, we mean-centered feedback score variables prior to computing cross- product terms (Aiken & West, 1991).

Table 1

Means (M), Standard Deviations (SD), and Intercorrelations among Demographic, Control, Independent, and Dependent Variables (N = 274)

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Gender												
2. Satisfaction with performance	0.87	.56	-.04									
3. Satisfaction with feedback	1.38	.51	.01	.03								
4. Positive affectivity	3.59	.43	-.04	.07	.28**	(.76)						
5. Learning goal orientation	5.49	.78	-.10	-.08	-.01	.42**	(.83)					
6. Core self-evaluations	3.74	.52	-.17**	.05	.21**	.56**	.35**	(.84)				
7. Feedback score	3.79	.40	-.13*	.01	.30**	.22**	.17**	.13*				
8. Favorable feedback reactions	3.21	.66	-.06	.01	.37**	.19**	.03	.03	.40**	(.86)		
9. Unfavorable feedback reactions	1.42	.35	.14*	.07	-.24**	-.20**	-.23**	-.25**	-.42**	-.26**	(.73)	
10. Skill development activities	2.92	.63	-.10	-.02	.04	.17*	.16*	-.02	.06	.28**	-.07	(.88)

Note. Internal consistency reliabilities are reported in parentheses on the diagonal.

*$p < .05$, **$p < .01$

MANIPULATION CHECKS AND PRELIMINARY ANALYSES

Examination of the manipulation checks suggested that participants were sensitive to both the procedural information and information specificity manipulations. An analysis of variance (ANOVA) was conducted for each manipulation check variable. Feedback score was entered as a control variable in all analyses. First, the effect of procedural information on the amount of comments made by participants about their knowledge of the observation process and observers, was significant, $F(1,271) = 15.99$, $p < .001$, $\eta^2 = .06$. The mean ratings differed significantly from one another in the expected order (low $M = .20$, $SD = .55$; high $M = .56$, $SD = .88$). These mean ratings show that participants in the low procedural information condition reported to know less about the procedures and observers compared to participants in the high procedural information condition. Second, the effect of information specificity on the amount of comments made by participants about the specificity of feedback was significant, $F(2,270) = 5.72$, $p < .01$, $\eta^2 = .04$. Here as well, mean ratings differed significantly from one another in the expected order (low $M = .20$, $SD = .45$; moderate $M = .33$, $SD = .52$; high $M = .50$, $SD = .82$). These means show that participants in the low information specificity condition made significantly less comments concerning the specificity of information or the uniqueness of their feedback compared to participants in the moderate and high information specificity conditions. The results show that both manipulations in our study had the desired effect, and that participants perceived the procedural information and information specificity in the intended manner.

To provide some preliminary evidence for the construct validity of the feedback reaction measure, we first tested the assumption that feedback reactions were driven by respondents' satisfaction with feedback instead of their satisfaction with their performance. As can be seen in Table 1, correlational analysis showed that satisfaction with feedback was positively related to favorable feedback reactions ($r = .37$, $p < .01$) and negatively related to unfavorable feedback reactions ($r = -.24$, $p < .01$). We did not find significant correlations between satisfaction with performance and both feedback reactions.

Next, we analyzed these data with regression analysis to see whether the relationship remained significant when controlling for gender, positive

affectivity, learning goal orientation and feedback score. These analyses showed that satisfaction with feedback explained 6% of the variance in favorable feedback reactions ($\Delta R^2 = .06$, $F(1,245) = 17.32$, $p < .001$) ($\beta = .23$, $p < .001$) and 2% of the variance in unfavorable feedback reactions ($\Delta R^2 = .02$, $F(1,240) = 5.87$, $p < .05$) ($\beta = -.07$, $p < .05$). No effects were observed for satisfaction with performance. These results indicate that the reactions to feedback were caused by the respondents' (dis)satisfaction with the feedback, rather than their (dis)satisfaction with their own performance.

HYPOTHESES 1A AND 1B

As can be seen in Table 2 (1st part), the effect of feedback score on favorable reactions was significant ($\beta = .64$, $p < .001$) and explained 14% of the variance in favorable feedback reactions ($\Delta R^2 = .14$, $F(1,244) = 41.74$, $p < .001$). Thus, Hypothesis 1a was supported. As can be seen in Table 2 (2nd part), the effect of feedback score on unfavorable feedback reactions was significant ($\beta = -.33$, $p < .001$), and explained 14% of the variance in unfavorable feedback reactions ($\Delta R^2 = .14$, $F(1,239) = 42.25$, $p < .001$). Hypothesis 1b was also supported.

Table 2

Summary of Hierarchical Regression Analysis of Feedback Score on Favorable Reactions (= H1a) (N = 274) and Unfavorable Reactions (= H1b) (N = 274)

		Favorable reactions						Unfavorable reactions					
	Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	-.03	.09	-.02	-.40	.69	.05*	.05	.04	.06	1.06	.29	.10†
	Positive affectivity	.31	.12	.20	2.71	.01*		.01	.06	.01	.16	.87	
	Learning goal orientation	-.08	.06	-.09	-1.41	.16		-.04	.03	-.09	-1.43	.16	
	Core self-evaluations	-.13	.09	-.10	-1.4	.16		-.12	.05	-.17	-2.46	.02*	
Step 2	Feedback score	.64	.10	.39	6.46	.00†	.14†	-.33	.05	-.38	-6.5	.00†	.14†

Note. $^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$. Regression coefficients are for the final step.

HYPOTHESES 2A AND 2B

Quantitative analyses. We entered the interactive term between feedback scores and procedural information in the third step to test Hypotheses 2a and 2b. As can be seen in Table 3 (1st part), we found a positive interaction between feedback score and procedural information on favorable feedback reactions (β = .43, $p < .05$). This indicates that the slope for high procedural information was more positive than the slope for low procedural information. Furthermore, the interaction term explained 2% of the variance in favorable feedback reactions above the previous predictors (ΔR^2 = .02, $F(1,242)$ = 4.83, $p < .05$). To determine if the pattern of the interaction was consistent with our hypothesis, we plotted the interaction in Figure 3 (Aiken & West, 1991). As predicted by Hypothesis 2a, Figure 3 revealed that the relationship between feedback score and favorable feedback reactions was slightly more pronounced for individuals in the high procedural information group.

As can be seen in Table 3 (2nd part), we did not find a significant interaction effect between procedural information and feedback score for unfavorable feedback reactions (β = -.05, $p > .05$, ΔR^2 = .00, $F(1,237)$ = .28, $p >$ .05). Thus, Hypothesis 2b was not supported.

Qualitative analyses. To provide a rich and in-depth understanding of learners' reactions, we analyzed the qualitative comments that respondents provided. We summarized and sampled the typical responses for the hypotheses that were supported in the quantitative analysis. We believe these comments are exemplary of the reasons why participants reacted more favorably to their feedback scores when procedural information was high. An overview of qualitative comments made by respondents in all different conditions of this study can be found in Appendix B.

First, respondents reacted favorably to positive feedback, and this positive relationship was more pronounced when they received a high amount of procedural information in their feedback reports. Participants' comments indicated that a main reason for this finding was that the information about the rating process gave them the confidence that raters did a good job at observing them during the different workshops. As respondents noted:

> *"I was surprised that my scores were exactly how I thought they would be! This must have been a very difficult task for the raters! I didn't think they would have been able to paint a correct picture of my performance, but they did. Congratulations to all of them!"* (Respondent 36)

> *"All in all I think the feedback is correct. I am surprised that the observers were able to make such good observations, as the remarks they made are absolutely true! I think it's great that they paid so much attention to observing us, it makes you feel as if though they really cared for improving our performance!"* (Respondent 55)

As reflected in the comments, a second reason for the more favorable reactions when receiving procedural information may be that the respondents knew who observed them and deemed the raters to be credible. Consequently, they attached greater value to the comments made, and hence believed they could use the feedback for further improvement. This assumption is supported by some of the respondents who noted:

> *"I am satisfied with my score on most skills, and I agree with the somewhat lower scores I received. I definitely agree with the observers that I am not that good at negotiating, and that I should try to use the leads that were given during the workshops."* (Respondent 11)

> *"I feel as if though my report shows how I performed during the different workshops… I am really happy that, for the first time, I received a clear picture about how I perform on several skills, and that I have some guidelines about what I can do to improve my performance on these skills."* (Respondent 255)

Table 3

Summary of Hierarchical Regression Analysis of Feedback Score and Procedural Information on Favorable Reactions (= H2a) (N = 274) and Unfavorable Reactions (= H2b) (N = 274)

		Favorable reactions						Unfavorable reactions					
	Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	-.02	.08	-.01	-.20	.84	.05*	.04	.04	.06	1.01	.31	.10†
	Positive affectivity	.30	.12	.20	2.62	.01**		.01	.06	.01	.14	.89	
	Learning goal orientation	-.08	.06	-.09	-1.43	.15		-.04	.03	-.09	-1.32	.19	
	Core self-evaluations	-.11	.09	-.08	-1.17	.24		-.12	.05	-.18	-2.49	.01*	
Step 2	Feedback score	.41	.14	.25	2.93	.00**	.14†	-.30	.07	-.34	-4.05	.00†	.14†
	Procedural information	-.04	.08	-.03	-.55	.58		.04	.04	.06	1.04	.30	
Step 3	Feedback score x Procedural information	.43	.19	.19	2.20	.03*	.02*	-.05	.10	-.05	-.54	.59	.00

Note. $^{*}p < .05$, $^{**}p < .01$, $^{\dagger}p < .001$. Regression coefficients are for the final step.

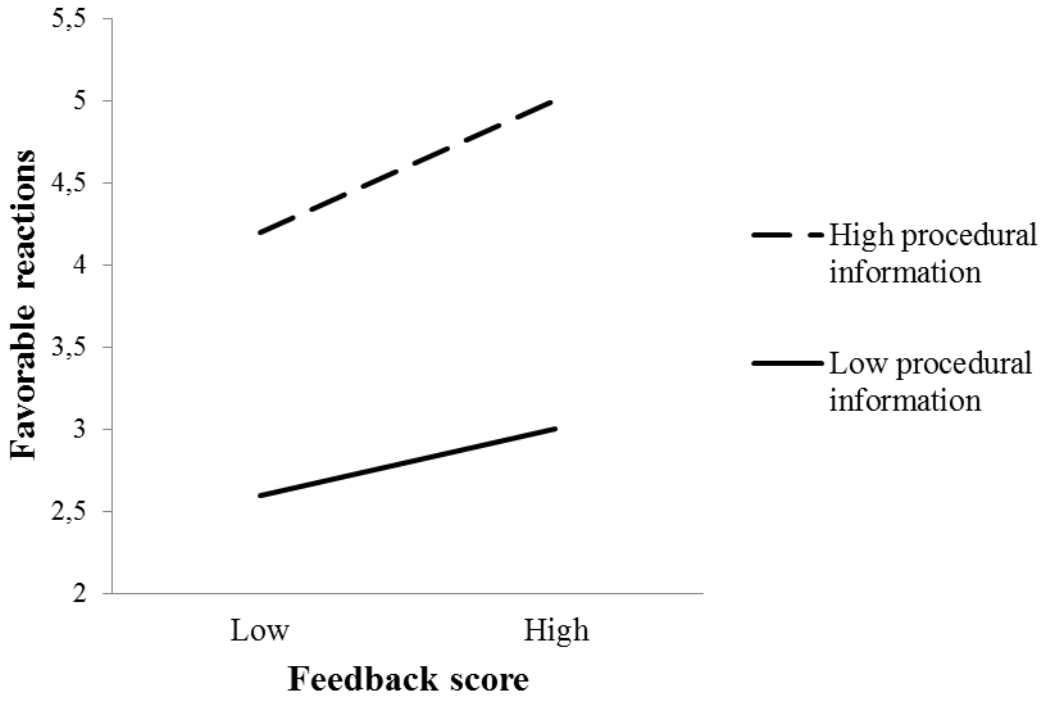

Figure 3. *Interaction of Feedback Score and Procedural Information on Favorable Feedback Reactions*

HYPOTHESES 3A AND 3B

Quantitative analyses. To test Hypotheses 3a and 3b, we included the main effect of feedback score and two dummy coded variables reflecting the three information specificity levels (low, moderate and high) in the equation. When coding the variables, we used the 'low'- information specificity group as the 'focal' or 'base' group. In the third step the interactive terms computed using the centered variable of feedback score and the two dummy coded variables were entered. As can be seen from Table 4 (1st part), the interaction between information specificity and feedback score was not significant for favorable feedback reactions ($\Delta R^2 = .01$, $F(2,240) = .91$, $p > .05$), thus Hypothesis 3a was not supported.

For Hypothesis 3b, and as can be seen in Table 4 (2nd part), the interaction between information specificity and feedback score explained additional variance in unfavorable reactions beyond the main effects and explained 3% of the variance in unfavorable feedback reactions above the previous predictors ($\Delta R^2 = .03$, $F(2,235) = 4.21$, $p < .05$). We found a significant

Z_1 by feedback score interaction term (β = .35, p < .01). This indicates that the slope for moderate information specificity is more positive than the low information specificity slope. Contrary to our predictions in Hypothesis 3b, Figure 4 reveals that the relationship between feedback score and unfavorable feedback reactions was slightly more pronounced for individuals in the low information specificity group than for people in the moderate information specificity group. Thus, Hypothesis 3b was not supported.

Qualitative analyses. Here, the results from quantitative analyses show that respondents reacted unfavorably to negative feedback, but this positive relationship was less pronounced when they received a low amount of information specificity in their feedback reports. This unexpected pattern was also reflected in participants' comments. For instance, an exemplary commentary was:

> *"I don't understand why I got the scores that I got… There are so many reasons that can influence these feedback scores, so I don't think these scores paint a correct picture of my performance during the workshops…."* (Respondent 85)

> *"I have a low score on teamwork, although I think I did quite well in this workshop. Even so I am not disappointed, as the feedback wasn't explained to me, and I thus attach little value to my feedback report and the scores in it."* (Respondent 237)

Thus, a possible explanation for this result may be that respondents did not feel inclined to accept their negative feedback scores because of the lack of information that was given to them, and hence did not feel the need to respond unfavorably. It seems that a low amount of information enables respondents to attribute their low feedback score to factors other than their performance such as low-quality ratings or extraneous conditions. As respondents noted:

> *"I wasn't surprised that I got some low scores in the report. I was very tired during the different workshops so I didn't perform as well as I usually do… I know that I do much better under 'normal' circumstances."* (Respondent 193)

> *"I think these scores are rather subjective, as I didn't get an explanation for them. However, I know I had a bad day the day of the workshop, so that may be an explanation for my low scores… I am quite positive that I would score higher on a good day."* (Respondent 225)

An overview of qualitative comments made by participants in the other conditions of this study can be found in Appendix B.

Table 4

Summary of Hierarchical Regression Analysis of Feedback Score and Information Specificity on Favorable Reactions (= H3a) (N = 274) and Unfavorable Reactions (= H3b) (N = 274)

		Favorable reactions						Unfavorable reactions					
	Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	-.04	.09	-.03	-.44	.66	.05*	.05	.04	.06	1.10	.27	.10†
	Positive affectivity	.32	.12	.20	2.74	.01**		.02	.06	.02	.23	.82	
	Learning goal orientation	-.07	.06	-.08	-1.15	.25		-.05	.03	-.10	-1.54	.12	
	Core self-evaluations	-.14	.09	-.11	-1.54	.13		-.10	.05	-.16	-2.20	.03*	
Step 2	Feedback score	.52	.17	.31	3.04	.00**	.15†	-.52	.09	-.59	-5.93	.00†	.14†
	Information specificity Z_1	.10	.10	.07	1.09	.28		-.05	.05	-.06	-.94	.35	
	Information specificity Z_2	.20	.10	.14	2.05	.04*		-.04	.05	-.05	-.77	.44	
Step 3	Feedback score x Information specificity Z_1	.08	.24	.03	.33	.75	.01	.35	.12	.23	2.89	.00**	.03*
	Feedback score x Information specificity Z_2	.31	.24	.11	1.29	.20		.20	.12	.13	1.64	.10	

Note. *$p < .05$, **$p < .01$, †$p < .001$.

The three information specificity groups (low, moderate and high) are dummy coded in Z_1 and Z_2, with the low-specificity group as focal group. Regression coefficients are for the final step.

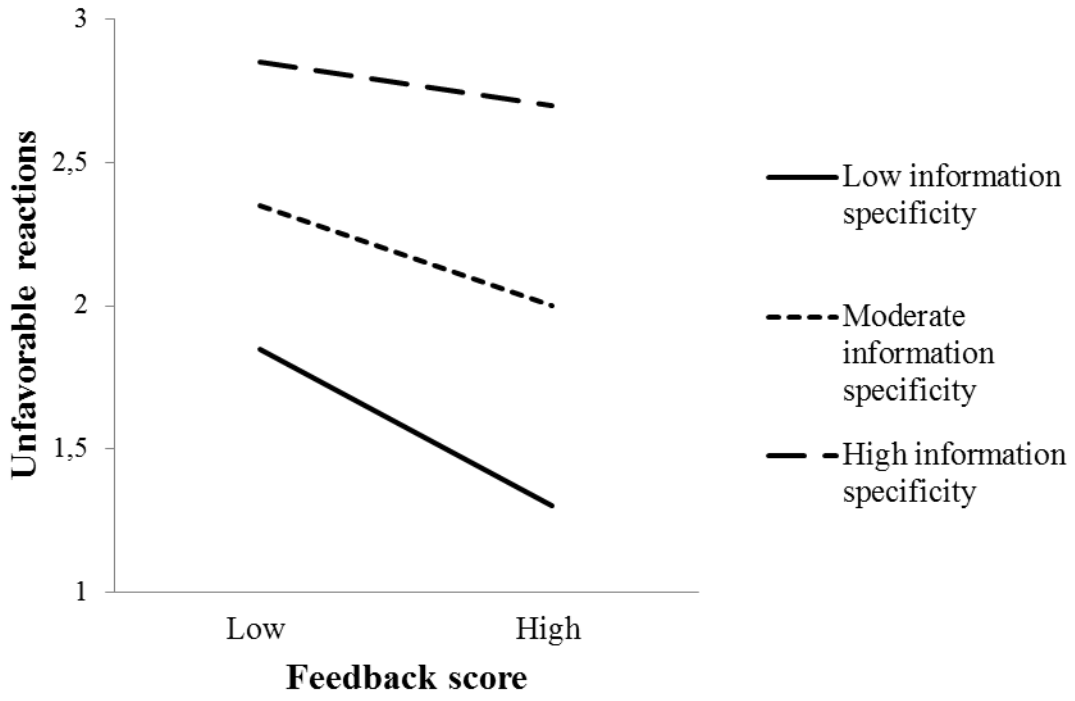

Figure 4. *Interaction of Feedback Score and Information Specificity on Unfavorable Feedback Reactions*

HYPOTHESES 4A AND 4B

To investigate the relationship between favorable and unfavorable feedback reactions and involvement in skill development, we looked at the correlations between reactions and the dependent variable. As can be seen in Table 1, we found a significant correlation between involvement in skill development activities and favorable reactions (r = .28, p < .01), but a non-significant correlation between this variable and unfavorable reactions (r = -.07, p > .05).

Next, we conducted a more stringent test of these relationships involving all control variables that can influence the dependent variable. We conducted two hierarchical multiple regression analyses with satisfaction with performance as an additional control variable next to the four control variables that were also included in all previous analyses. As can be seen in Table 5 (1st part), we found a positive relationship between favorable feedback reactions and involvement in skill development (β = .20, p < .05), and favorable feedback reactions explained

5% of the variance in involvement in skill development above the previous predictors (ΔR^2 = .05, $F(1,135)$ = 6.92, p < .05). Thus, Hypothesis 4a was supported. Finally, we conducted a relative weights analysis (Tonidandel & LeBreton, 2011) to provide an estimate of the relative importance of each of the different independent variables in predicting involvement in skill development. As can be seen in Table 5 (1st part), favorable reactions had the highest relative importance of all predictors of involvement in skill development activities (50.4%), whereas satisfaction with performance was the least important predictor (0.4%).

As can be seen in Table 5 (2nd part), the effect of unfavorable feedback reactions on involvement in skill development was not significant (ΔR^2 = .00, $F(1,133)$ = .06, p > .05). Hypothesis 4b was thus not supported. We again conducted a relative weights analysis. Table 5 (2nd part) shows that in this case positive affectivity had the highest relative importance (40.2%) whereas satisfaction with performance was the least important predictor (0.7%). Finally, in an exploratory sense we also tested whether the manipulations and their interactions with feedback scores had an effect on involvement in skill development activities, but found no significant effects.

Table 5

Summary of Hierarchical Regression Analysis of Favorable Reactions (= H4a) (N = 156) and Unfavorable Reactions (= H4b) (N = 156) on Involvement in Skill Development Activities

		Involvement in skill development activities (IV = Favorable reactions)						Involvement in skill development activities (IV = Unfavorable reactions)					
	Variable	*b*	*SE(b)*	*t*	*p*	*%* [a]	ΔR^2	*b*	*SE(b)*	*t*	*p*	*%* [a]	ΔR^2
Step 1	Gender	-.16	.12	-1.39	.17	6.8	.08*	-.20	.12	-1.64	.10	12.8	.09*
	Positive affectivity	.24	.16	1.48	.14	17.9		.35	.16	2.20	.03*	40.2	
	Learning goal orientation	.09	.08	1.22	.22	15.5		.09	.08	1.17	.25	24.4	
	Core self-evaluations	-.17	.12	-1.49	.14	9.0		-.23	.12	-1.91	.06	18.7	
	Satisfaction with performance	-.06	.09	-.69	.49	0.4		-.08	.09	-.80	.43	0.7	
Step 2	Favorable reactions / Unfavorable reactions	.20	.08	2.63	.01*	50.4	.05*	-.04	.15	-.24	.81	3.2	.00

Note. * $p < .05$.

Regression coefficients are for the final step.

[a] Percentages indicate the relative importance of all independent variables in relation to the dependent variable.

DISCUSSION

The present study examined informational factors that were proposed to enhance feedback reactions in managerial skill development. First, we found that learners reacted more favorably to positive feedback and that this positive effect was strengthened if the amount of procedural information they received was high. This result indicates that feedback recipients react more favorably to a higher score when they are aware of the process and procedures used to reach the feedback decision. Qualitative comments by respondents suggest that participants attached greater value to their feedback when they knew it came from trained observers. When feedback providers were seen as credible sources, respondents saw the feedback as a helpful means to improve their performance.

Second, learners reacted unfavorably to negative feedback but this effect was less pronounced when the specificity of feedback information they received was low. This finding is surprising as we expected unfavorable feedback reactions to diminish when the participants received high specific information. A viable explanation is that, under conditions of low specificity, learners are able to protect their self-image by attributing poor performance to uncontrollable or external causes (Ilgen & Davis, 2000; Taylor, Fisher, & Ilgen, 1984). This was also supported by qualitative comments made by participants. We found that, in case of low information specificity, participants referred to external factors as the cause of their low performance. The underlying mechanism is that when people receive negative feedback substantiated by specific, personal comments explaining exactly why the feedback message was negative, it becomes difficult, if not impossible, to attribute this to external uncontrollable causes. When learners receive the same feedback without these personalized remarks, making external attributions for this feedback is more likely. A study by Schinkel, van Dierendonck and Anderson (2004) supports this explanation. Providing participants with detailed performance feedback in the context of a negative selection decision sometimes led to more negative participant reactions, suggesting that the provision of detailed performance feedback is not always as advantageous as often assumed. In an exploratory sense, we further probed this explanation by coding and analyzing qualitative comments of participants on

their perceptions of controllability. However, exploratory analysis with qualitative data did not yield any significant results in the proposed direction.

Third, we found a positive relationship between favorable feedback reactions and involvement in skill development activities 15 months after receiving feedback. This is an important finding as it corroborates our central assumption that initial reactions to feedback are predictive of future development activities, even over longer periods of time. It invites management educators to pay more attention to learners' immediate reactions and to invest effort in feedback interventions that are supportive of favorable feedback reactions as we proposed in the current study. In an exploratory sense we also tested whether feedback manipulations affected development 15 months later, but found no significant effects. Thus, some caution is needed. Although information specificity and procedural information are important educational strategies for shaping immediate feedback reactions, they may be less important for developmental activity in the long term.

THEORETICAL IMPLICATIONS

Theoretically, our study contributes to a better understanding of how different types of information, and how information is presented, can affect learners' reactions to feedback. Recently, calls have been made to develop new interventions for enhancing feedback processes that have the potential to impact on immediate reactions to feedback (e.g., Anseel et al., 2009). We think that our study fills this gap in the literature and extends the current theoretical focus on how the processing of information may facilitate feedback interventions. Furthermore, this study also addresses an important concern in the literature by developing and *applying* a feedback intervention in the field, rather than merely measuring participants' post-hoc perceptions. Greenberg (2009) recently criticized researchers for focusing too much on generating knowledge, rather than investigating how these theoretical principles should be applied. In this study, we tried to address this critique by actively developing and experimentally testing a feedback intervention that can readily be implemented in the context of management education. Thus, we are the first to show that

altering the information presented in feedback reports *causes* changes in feedback reactions.

RECOMMENDATIONS FOR EDUCATORS

From a practical perspective, developing solid feedback interventions has been a challenge for management educators for quite some time now. Given the practical design of the current study, the main findings of this study should be appealing and easily implementable for practitioners. Based on the insight in the present study, we offer four strategies that educators may want to consider when providing feedback to students. A first strategy deals with the level of information in the feedback report. Our study showed that a lack of procedural information may undermine favorable reactions. Therefore, we advise educators to ensure that feedback recipients are aware of the procedures used to reach the feedback decision and be honest about the process that led to the feedback (score). We also found that high levels of information specificity increased unfavorable feedback reactions. We encourage educators to be cautious with the immediate provision of detailed negative performance feedback. However, at the same time educators should be aware of the potential pitfall of withholding valuable negative feedback to avoid negative reactions. It is therefore crucial for educators to strike a balance between being clear on the one hand and avoiding too detailed negative comments on the other hand. Research investigating performance-enhancing feedback strategies has shown that reflecting on feedback can enhance performance improvement, but only in combination with external feedback and guidance (Anseel et al., 2009). Therefore, one way of conveying negative feedback without being overly specific is by providing feedback recipients with overall outcome feedback and helping them to find out the explanations for potential negative outcomes on their own by means of guided reflection and after event-reviews. It is important to realize that these guidelines are especially helpful to enhance reactions to feedback, but they may have less direct impact on developmental activities in the long term. Still, focusing on immediate feedback reactions seems warranted as feedback reactions are predictive of development activities 15 months later.

A second strategy concerns individual differences among learners. Relative weights analysis showed that positive affectivity and learning goal orientation are the most important traits in determining students' involvement in skill development activities. Given that individual differences may make learners more or less open to feedback, we recommend that educators try to make students aware of their natural dispositions towards feedback and encourage them to engage in introspection when dealing with feedback messages. Educators should also train themselves in paying attention to these individual differences and tailor feedback messages to students individually.

Third, learners' comments suggest that they attribute low feedback scores to external causes (e.g., "*I was tired*" or "*I had a bad day*") whereas others take responsibility for their actions (e.g., "*I didn't put as much effort in as I should have done")*. We argue that it is crucial to help learners deal with critical feedback. Educators may guide them during feedback interventions in how to act less defensively when receiving criticism. The qualitative comments suggest that internal and external attributions are a crucial mechanism for learners to take responsibility for the feedback received. Thus, it is important for educators to manage students' attributional style as a means to reduce unfavorable reactions to negative feedback and stimulate learning.

Fourth, comments provided by learners suggest rater issues play an important role. Management educators may experience difficulties in communicating negative feedback. We propose that feedback that is provided and discussed by a feedback facilitator who helps recipients to interpret the feedback message in an appropriate manner, will lead to more favorable reactions and stronger development. In the context of an educational setting, this may well be another (credible) teacher that was not involved in the development of the feedback message and who can act as an independent facilitator alongside the person responsible for the feedback. However, taking into account the workload teachers often have to deal with, this may not always be the most realistic option. A more practical possibility is therefore to use web-based feedback systems (e.g., 'Expert Systems', Van Fleet et al., 2005) that provide standardized feedback based on the information inserted by the teacher. These can be supplemented with online reflection modules to help learners interpret

feedback. We believe using these feedback systems can be a valuable tool for educators to provide students with objective feedback on a regular basis. We argue that the strategies formulated here can provide educators with a more integrated sense of actions they can take when giving feedback to students and when dealing with their subsequent reactions.

SUGGESTIONS FOR FUTURE RESEARCH

Apart from its theoretical implications, our results may also guide future studies on feedback reactions. First, given the frequent use of multisource feedback systems in management development programs (e.g., Brutus, Petosa, & Aucoin, 2005; Hooijberg & Lane, 2009; Shipper, Hoffman, & Rotondo, 2007), an interesting avenue for future studies is how these different types of information and feedback formats can be implemented in the context of multisource feedback systems. Second, research should address whether people react differently to feedback reports that are provided face-to-face in contrast to electronic channels (such as e-mail). Research has for instance revealed that employees seek more feedback when feedback can be requested and/or provided via a computer (Ang & Cummings, 1994; Ang, Cummings, Straub, & Early, 1993; Kluger & Adler, 1993). Although studies have shown that both face-to-face (e.g., Hwang, Ang, & Francesco, 2002) as well as electronic (e.g., Arbaugh & Benbunan-Fich, 2006) feedback channels are important in the learning environment, no research has investigated the impact of both types of channels on reactions to feedback (Hwang & Francesco, 2010). Third, future research should examine the effects of other changes in information in feedback reports. For instance, self-determination theory would suggest that the tone used in feedback reports (e.g., “good, you did as you should” versus “good, this is exemplary”) would also affect feedback reactions. Fourth, the generation of children born between 1976 and 1994, the so-called “Generation Y” or “Millenials”, are currently entering our labor market and classrooms (Gardner, 2006). These ‘Millenials’ are characterized as optimistic, tenacious, hard-working, and civic-minded. However, some describe them as self-absorbed, unable to entertain themselves, and not tough enough to handle the workplace (Zemke, Raines, & Filipczak, 2000). This generation is said to be unable to

handle negative feedback and critique. It would be very interesting to explore whether and how these cohort effects have an impact on recipients' reactions to feedback. Finally, future studies might look at the effects of feedback source credibility. Students in the high procedural information did know their raters were trained psychology students. Although not quantitatively measured, respondents' qualitative comments suggested that rater credibility played a role. When participants knew who rated them, their reactions seemed more favorable than when they did not receive information about the observers and the observation process.

LIMITATIONS

Of course, the current study is not without its limitations. A first limitation is that we conducted an experimental field study rather than a controlled lab study. Therefore, the information provided in the high specificity information group (e.g., actual behavioral observation) was not exactly the same across participants. People in this group received personal comments observed in a workshop that could not be completely standardized. However, all measures were taken to maximize standardization. Participants in the high specificity group received a maximum of three sentences in their report all formulated in a similar way. We believe that this approach corresponds most closely to feedback practices where people receive feedback that is tailored to their actual behavior in the specific work or developmental environment. A second limitation is that we investigated only two types of information in feedback reports. It would be interesting to investigate whether other types of information (e.g., text versus numeric feedback, normative versus self-referenced feedback) are also related to feedback reactions. Third, we relied on self-reported involvement in developmental activities but had no objective data on actual behavioral learning or job performance. Fourth, although we assumed that the attributions made by participants about the feedback would be likely mechanisms for the reactions they displayed, we could not find support for this in exploratory analyses of the qualitative data. Clearly, an in-depth examination of the attributions made by recipients about the positive or negative feedback they receive is an important issue for future research.

CONCLUSIONS

In conclusion, we found that the effects of feedback scores on feedback reactions are altered by the presence of procedural information and information specificity in feedback reports. Furthermore, we showed that favorable feedback reactions were predictive of involvement in skill development over a period of 15 months. These findings should encourage management educators to take a closer look at the type and amount of information given in feedback reports and to pay more attention to initial feedback reactions during skill development.

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APPENDIX A

Overview of Coding Rules for the Qualitative Variables

Variable	Coding rules
Procedural information	Definition: *"Procedural information refers to the level of information about the procedures used to determine a feedback score and the observers who give the feedback score." This variable examines whether the trainee knows how and by whom the feedback scores were determined.* Code this remark as ***'2'*** when comments are provided regarding the trainee *knowing* how the feedback scores were determined, or regarding his/her *knowledge* about the observation process and observers. Code this remark as ***'1'*** when the trainee either does *not mention* anything regarding the observers or observation process, or provides comments that show (s)he is *not sure* how the observation process took place and who were the observers. Code this remark as ***'0'*** when comments are provided regarding the trainee *not knowing* how the feedback scores were determined, or regarding his/her *lack of knowledge* about the observation process and observers.
Information specificity	Definition: *"Information specificity refers to the level of information presented in feedback messages. As specificity increases, feedback focuses progressively on particular behaviors and provides more information on the locus of errors." This variable examines whether the trainee is aware of the amount of information in his/her feedback report, and mentions anything about the specificity and/or uniqueness of this information.* Code this remark as ***'2'*** when comments are provided regarding the *amount of information*, the *specificity and/or uniqueness* of the information in the feedback report, that shows that the trainee perceives the feedback to be *specific and/or unique*. Code this remark as ***'1'*** when the trainee either does *not mention* anything regarding the amount of information, the specificity and/or uniqueness of the information in the feedback report, or provides comments that show (s)he is *not sure* whether the information is specific and/or unique. Code this remark as ***'0'*** when comments are provided regarding the *lack of information*, the *lack of specificity and/or uniqueness* of the information in the feedback report, that shows that the trainee perceives the feedback to be *unspecific and/or impersonal*.

Satisfaction with feedback	*This variable examines how the trainee experiences the feedback (s)he received. In other words, does the trainee feel good or bad about his/her feedback? Does (s)he feel satisfied or dissatisfied with his/her feedback?* Code this remark as ***'2'*** when comments are provided regarding the trainee being *satisfied* with his/her feedback. The trainee is *satisfied* with his/her feedback, and feels as if this was formulated *constructively*. Code this remark as ***'1'*** when the trainee either does *not mention* anything regarding being (dis)satisfied with his/her feedback, or provides comments that shows (s)he is *not sure* whether to be satisfied or dissatisfied with his/her feedback. Code this remark as ***'0'*** when comments are provided regarding the trainee being *dissatisfied* with his/her feedback. The trainee is *dissatisfied* with his/her feedback, and feels as if this was formulated *destructively*.
Satisfaction with performance	*This variable examines how the trainee experienced his/her performance during the workshops. In other words, does the trainee feel good or bad about his/her own performance? Does (s)he feel satisfied or dissatisfied with his/her performance?* Code this remark as ***'2'*** when comments are provided regarding the trainee being *satisfied* with his/her performance. The trainee is *satisfied* with his/her performance, and feels as if (s)he *performed well*. Code this remark as ***'1'*** when the trainee either does *not mention* anything regarding being (dis)satisfied with his/her performance, or provides comments that shows (s)he is *not sure* whether to be satisfied or dissatisfied with his/her performance. Code this remark as ***'0'*** when comments are provided regarding the trainee being *dissatisfied* with his/her performance. The trainee is *dissatisfied* with his/her performance, and feels as if (s)he *performed badly*.

APPENDIX B

Qualitative Comments by Participants

High procedural information – High information specificity

Low feedback score

"I agree with the raters that I didn't always perform as well as I should have, and I am surprised the raters knew that the reason for this was that I wasn't motivated."

"My scores were lower than I had thought, but because of the remarks made I do understand where they come from. I would have loved to have higher scores, but if I'm really honest, I have to admit the scores fitted the explanation well."

High feedback score

"The feedback was honest and fair, and my scores were correct as well."

"I was surprised that my scores were exactly how I thought they would be! This must have been a very difficult task for the raters! I didn't think they would have been able to paint a correct picture of my performance, but they did. Congratulations to all of them!"

High procedural information – Moderate information specificity

Low feedback score

"I think my evaluation is correct. I know I usually don't do well on negotiating, so my low score there wasn't a surprise. The observers did an excellent job rating so many people in such a short amount of time!"

"I know this would be a lot of work, but I would have liked some more detailed information about why I got these scores… I am not sure what I should do with my feedback report now…"

High feedback score

"My feedback report was vague, which was a pity because I would have loved to know why the observers thought I did such a good job!"

"I feel proud, motivated, satisfied, and sceptical!"

High procedural information – Low information specificity

Low feedback score

"I agree with the observers that for most workshops I didn't deserve a high feedback score. I would have liked some personal comments in my report, but all in all I am quite satisfied with the scores as I feel they are accurate."

"I don't know why the raters wrote down so much during the workshops, all I got were my scores! I have to say I am disappointed about this, as I at least expected to know where my scores came from."

High feedback score

"I am very happy with my feedback report. The feedback was quite standardized and not personal, but I did think it was very helpful to me."

"I was very motivated during the workshops, so I do agree with the raters that I did a good job. However, I am quite disappointed that the information was so short, I expected to get much more detailed feedback than this."

Low procedural information – High information specificity

Low feedback score
"I feel screwed over. How on earth can anyone give me feedback about things I did in a group setting without knowing me?!"
"I don't think the feedback for 'meeting skills' is correct. It's difficult to defend myself and explain why I think I did better than my score, because I don't know who rated me and why they gave me the remarks they did."

High feedback score
"It's a positive thing that we get so much information about our performance during the workshops. I do think the scores are relative though, and I would like to know whether the raters were trained in being objective…"
"I think it is a good thing that we get so much feedback about what we did right or wrong during the different workshops, because it gives me insight into my own performance."

Low procedural information – Moderate information specificity

Low feedback score
"As the comments I got in my report were rather vague, I have to admit that my low feedback score doesn't bother me at all."
"I am very surprised by my low score on 'feedback giving'. It's difficult for me to know whether this is accurate, as I have no clue about who gave me this score."

High feedback score
"Why should I be able to judge whether the procedures were fair?! I hardly got any information about them!"
"Of course I am happy that I performed well, but I do wonder what people with a low feedback score will learn from this? If they don't know what they did wrong, how can they ever do better?"

Low procedural information – Low information specificity

Low feedback score
"I find it annoying that you tell me all the things I supposedly did wrong, but that, in my opinion, my feedback score doesn't reflect how I performed at all!"
"I have a low score on teamwork, although I think I did quite well in this workshop. Even so I am not disappointed, as the feedback wasn't explained to me, and I thus attach little value to my feedback report and the scores in it."

High feedback score
"All in all the feedback doesn't make me happy. My scores were good, but no one has bothered to explain to us who gave us these scores and why they thought we deserved them…"
"I am very proud that I did such a good job! If I could say one thing, it would be that I think the remarks could have been more explicit rather than general as they were now. But I'm not complaining, I feel relieved that my feedback was this good!"

CHAPTER 5

GOOD INTERPERSONAL TREATMENT AND FAVORABLE FEEDBACK ENHANCE LATER APPLICANT REACTIONS: A LONG-TERM STUDY OF AMERICAN IDOL CANDIDATES.[1]

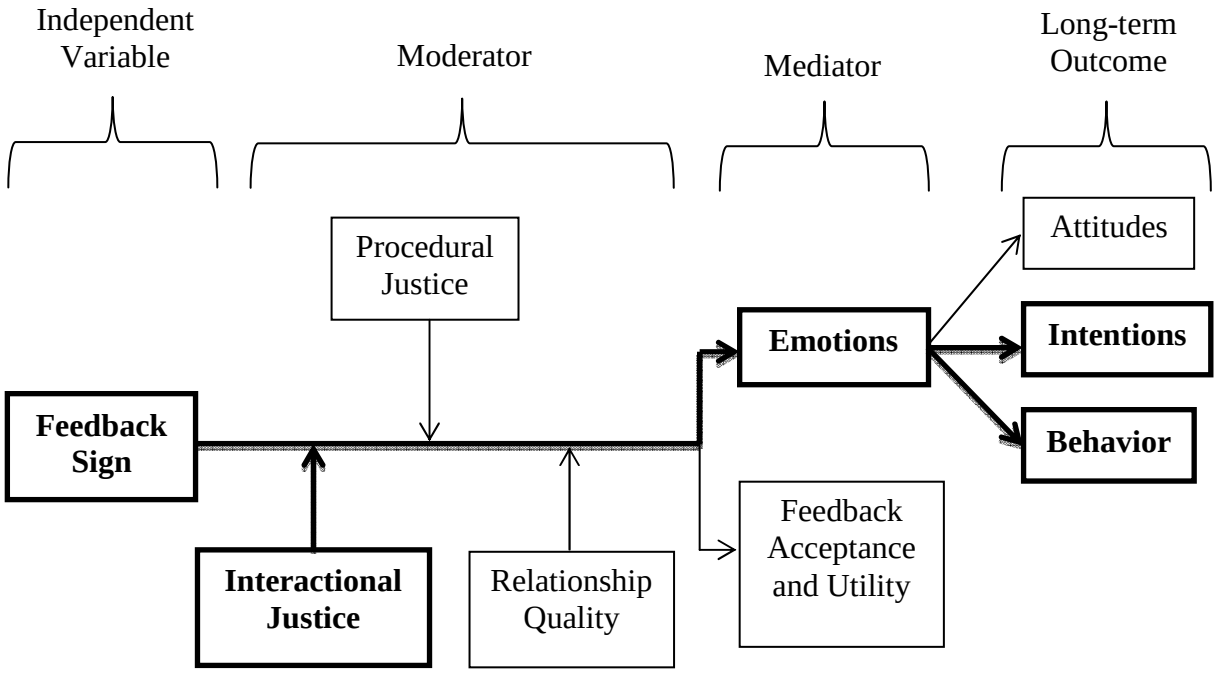

Figure 1. *Chapter 5 Situated in the Working Model of this Dissertation*

[1] Feys, M., & Anseel, F. (2012). *A longitudinal study of candidates' reactions in 'American Idol'*. Symposium conducted at the 27th Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, California, USA.

ABSTRACT

We investigated applicant reactions to feedback in a high-stakes setting, the auditions for *American Idol* (Belgian version). We collected data at three time points over the course of six months. We used coder ratings of *actual* feedback valence and *actual* interpersonal treatment behavior of judges and how these affected applicant reactions and behavior. Feedback valence interacted with interpersonal treatment behavior to affect satisfaction with feedback after controlling for the selection decision. These results showed that feedback valence matters to applicants, but only if the treatment is respectful. Further, moderated mediation analysis showed that the interaction between feedback valence and interpersonal treatment behavior indirectly led to recommendation intentions and later recommendation behavior through the experience of satisfaction with the feedback. These results provide useful suggestions for organizations and managers to communicate feedback to applicants, and subsequently enhance satisfaction with feedback and recommendation intentions in the short-term, and recommendation behavior in the long-term.

INTRODUCTION

Over the past decades there has been a surge of interest in studying applicants' perceptions of the employee selection process (Hülsheger & Anderson, 2009; Ryan & Ployhart, 2000). The basic premise is that applicants' experiences and associated perceptions of selection procedures affect how they view the organization, their decision to join it, and subsequent behaviors important to the hiring organization (e.g., recommending the organization to others, litigation). In a recent review, Sackett and Lievens (2008) concluded that the meager empirical evidence of a relationship between applicant perceptions and key individual and organizational consequences (e.g., actual withdrawal from the selection process, test performance) can be regarded as the Achilles heel of this field. Thus, examining how impressions of the selection process are formed and impact the behaviors that stem from it remains crucial to understanding how organizations should design their selection procedures.

Studies in selection contexts tend to support Gilliland's (1993) initial model of applicant reactions, demonstrating associations between selection

fairness rules (e.g., job-relatedness) and outcomes such as applicants' intentions to recommend others to apply to an organization, perceived organizational attractiveness, job acceptance intentions, and turnover intentions (e.g., Bauer, Maertz, Dolen, & Campion, 1998; Gilliland, 1994; Ployhart & Ryan, 1998). Recently, Anseel and Lievens (2009) expanded the theoretical scope of applicant perceptions research by drawing upon a well-established feedback process model (Ilgen, Fisher, & Taylor, 1979) to examine the effects of the actual feedback message that is communicated on applicant attitudes and behavior. They showed that the actual content of the feedback impacted applicants' reactions and subsequent test performance through the mediating role of feedback perceptions. Although Anseel and Lievens (2009) provided a valuable first step in extending Gilliland's justice model with insights from feedback theory, several questions remain.

A first important question concerns whether providing informational feedback matters beyond the outcome decision (pass/fail) of the selection process. For instance, Anseel and Lievens's study 1 took place in a web-based simulated student context where the effect of a negative or positive outcome decision was not particularly salient as compared to the outcome decision in an actual high-stakes selection session, and study 2 did not contain an outcome decision. However, some scholars have suggested that in the mind of the candidate, it may be that nothing else matters beyond the outcome, that is, passing the test and getting the job (e.g., Hausknecht, Day, & Thomas, 2004; Ployhart & Ryan, 1997). If informational feedback is to be included as a key determinant of applicant reactions in future theoretical models, empirical evidence is needed showing that the content of the feedback message affects reactions even when a negative decision is provided in a high-stakes setting. Therefore, in the present study we intended to disentangle the informational feedback communicated to the applicant from the ultimate selection decision. This means that the feedback valence (positive/negative) was not necessarily the same as the ultimate selection decision (pass/fail) so that the latter could be included as a control variable in all analyses.

Second, it remains unclear whether the effects of providing informational feedback depend on the interpersonal style with which the

feedback message is communicated to applicants. This makes it difficult for organizations to develop specific guidelines of how feedback information should be communicated, especially when the outcome decision is a negative one. To better understand the effects of informational feedback on applicant reactions, we propose that the way applicants are treated when receiving feedback will moderate the effect of the actual feedback message. While this study is not the first to suggest applicants' perceptions of their interpersonal treatment affects their reactions, this study is the first to our knowledge that looks at *actual* treatment behavior. Although past work has shown that perceptions of interpersonal treatment are related to applicant reactions (e.g., Hausknecht et al., 2004), no research has shown that the actual treatment by the selector matters. It might be that the truth is in the eye of the beholder and that only the applicant's perceptions matter, independent of how (s)he was actually treated. Such a perspective would be detrimental for organizations as they would have little opportunities to develop specific strategies for enhancing applicant reactions.

Thus, the aim of the current study was to extend current theoretical models of applicant reactions by examining the effects of providing informational feedback and the conditions that are essential to enhance applicant reactions within a high-stakes process. A more detailed understanding of the feedback process during selection may result in new strategies to prevent against a negative impact of rejection decisions on both applicants and organizations.

We examined these issues in a previously unexamined high-stakes setting that met all the criteria necessary to address these research questions. We followed the candidates of the Belgian version of the reality television show '*American Idol'* during the six months of the selection phases. This particular high-stakes context contained all the crucial components of a traditional selection process but showed some unique benefits. Similar to a traditional selection context, candidates in this study are highly invested in the selection process with their future professional careers depending on the selection decision. However, in contrast to traditional selection contexts, in this study setting the entire selection procedure, from applicant entry to feedback delivery is videotaped, which enabled us to objectively measure how the candidates were treated when the selectors personally communicated the performance feedback

and outcome decision. Thus, behavior was not only incorporated as an outcome (i.e. recommendation behavior) in our model, but also as an antecedent (i.e. actual interpersonal treatment as assessed by trained raters), something that has seen little attention in the applicant reactions literature. Second, a unique feature of '*American Idol'* is that candidates may typically receive both positive and negative feedback information in person from the jury, before a final outcome decision is made. Third, talent shows such as *'American Idol'* have become notorious for their highly variable interpersonal treatment of candidates, to put it mildly. Fourth, it also allowed us to investigate this issue in a long-term manner using multi-source data over time. More specifically, we collected data at three points in time over a time course of six months and were able to collect self-report data (i.c., satisfaction with feedback, recommendation intentions and behavior) and rater-reports (i.c., feedback valence, interpersonal treatment behavior).

FEEDBACK MESSAGE

Feedback is commonly defined as 'actions taken by (an) external agent(s) to provide information regarding some aspect(s) of one's task performance' (Kluger & DeNisi, 1996, p. 254). From this definition, it becomes apparent that selection situations are in essence feedback processes, as applicants typically receive information (e.g., outcome and/or informative feedback) about their performance on one or more tasks (e.g., personality tests, interviews, assessment center exercises) from an external agent (the organization) (Anseel & Lievens, 2009). As was noted by Fiske (1967), in the context of selection decisions, reactions to tests are not just reactions to the procedure itself, but are reactions to being evaluated (Ryan & Ployhart, 2000). According to these authors, regardless of what changes are made to tools used in decision-making, selection remains an evaluative process.

Although the actual selection decision seems to be the most salient outcome of a selection process, the feedback that is given about this decision may also importantly impact applicants (Schinkel, van Dierendonck, van Vianen, & Ryan, 2011). Thus, the feedback that is communicated to an applicant should not be equated with the ultimate selection decision this person receives

(see also Schinkel, van Dierendonck, & Anderson, 2004; Schinkel et al., 2011). It is for instance possible that an applicant receives moderately positive feedback but is still rejected at the end of the selection process, as other applicants may have generally outperformed him/her. As a selection process is mostly constituted of different aspects and tests, the feedback that is given may be different for several aspects of the selection test. The ultimate selection decision in its turn is always based on the aggregated evaluation of these aspects of a candidate's performance relative to others. This implies that an applicant may receive positive feedback because of a good performance on some aspects of the selection test (but a bad performance on others), and still receive a negative selection decision. Hence, although the ultimate selection decision was negative and should typically lead to unfavorable reactions, the reception of positive performance feedback may lead to more balanced reactions in the end. Although we assume this is less likely, the opposite is also possible: A candidate may receive negative feedback on a few tests or by a few assessors, but still receive a positive selection decision. Thus, it is clear that there may be an important difference between the valence of the feedback content and the selection decision. Hence, one important question that needs to be addressed is how detailed feedback information may be provided to enhance applicant reactions, even after a negative selection decision. Note that the terms (selection) feedback and (selection) outcome are sometimes used interchangeably. In this paper, selection feedback entails detailed information about the performance of the candidate during the selection procedure, and thus is regarded as independent from the selection outcome itself (see also Schinkel et al., 2004; Schinkel et al., 2011).

As discussed before, in this study we will look at the *content* (i.e. the valence of the evaluation of candidate performance) of the feedback message candidates receive, as observed by two independent raters. In the remainder we argue that, independent of the actual outcome decision, favorable performance feedback may lead to recommendation intentions (T2) and actual recommendation behavior (T3) through the experience of satisfaction with this feedback. However, we argue that this effect will only occur under certain well-defined circumstances. More specifically, we expect that the way the candidate

is treated (i.e. respectful or disrespectful) will moderate the relationship between feedback and experienced satisfaction.

HYPOTHESIS DEVELOPMENT

Satisfaction has been the most frequently studied reaction of all appraisal reactions (Jawahar, 2007; Keeping & Levy, 2000). Satisfaction with (aspects of) the evaluation process is regarded as one of the most consequential of all reactions to performance feedback (e.g., Giles & Mossholder, 1990; Jawahar, 2007). For instance, Jawahar (2006) reported that satisfaction with appraisal feedback was positively related to job satisfaction and organizational commitment and negatively related to turnover intentions. In their study, Kinicki, Prussia, Wu and McKee-Ryan (2004) further found that appraisal satisfaction was related to aspects of performance.

One of the crucial factors in determining whether feedback will lead to (dis)satisfaction with the selection and appraisal system is the sign (valence) of the feedback message (Anseel & Lievens, 2006). Feedback sign (positive or negative) is important because it has a tremendous influence on how employees respond, for instance, to performance appraisals (Landy & Farr, 1980): Positive feedback generally leads to more favorable employee feedback reactions (such as higher satisfaction), whereas negative appraisals cause dissatisfaction (Anseel & Lievens, 2006; Illies, De Pater, & Judge, 2006; Tonidandel, Quiñones, & Adams, 2002). This finding is in line with the assumptions of "self-enhancement" theory, which asserts that individuals react more favorably and are more accepting towards positive self-relevant information than negative appraisals as it is more consistent with their positive self-perceptions (Sedikides & Gregg, 2008). People are motivated to elevate the positivity of their self-perceptions and will do anything to protect their self-concepts from negative information. As a result, they will be more satisfied with positive than negative information about themselves.

Another important determinant of positive reactions is the way in which applicants are treated. Bies and Moag (1986) were the first to introduce the construct of 'interactional justice'. They argued that perceptions of the quality of interpersonal treatment that individuals receive during the enactment of

organizational procedures likely have a substantial influence on individuals' overall sense of organizational justice. According to these authors, this 'social side' of justice consisted of two elements, namely informational justice (concerning the question whether the reasons underlying the resource allocation decision are clearly, truthfully, and adequately explained to the affected parties) and interpersonal justice (concerning the question whether those responsible for implementing the decision treat the affected individuals with dignity and respect) (Bies & Moag, 1986). Greenberg (1993, 1994) suggested that this latter element primarily alters reactions to decision outcomes because sensitivity can make people feel better about an unfavorable outcome. Thus, according to Greenberg, people who are evaluated positively may feel bad because of poor interpersonal treatment by the feedback giver. Conversely, even when a person gets a negative evaluation, (s)he may feel satisfied because (s)he was treated with respect and dignity during the evaluation process.

Thus, although feedback valence has been shown to be crucial in determining reactions to feedback, until now *how* interpersonal treatment may influence this relationship has not been studied. More important, until now the *actual* interpersonal treatment of candidates has not been investigated in the applicant reactions literature. We believe that examining how feedback valence and actual interpersonal treatment interact to affect applicants' reactions is crucial in order to extend current models of applicant reactions and to help organizations design a selection process that can increase positive reactions and behaviors.

When entering an audition or selection process, applicants hold certain expectations that may influence their perceptions (e.g., Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Rynes & Lawler, 1983). In this study, we argue that applicants' expectations regarding their performance will be generally positive, and that these expectations will have an impact on participants' reactions to feedback in very specific ways. Particularly, as candidates in this stage of the competition were already among the best out of a pool of over 3000 candidates, they may indeed have some reason to believe that they have a real chance of receiving a positive outcome decision. Hence, when during the selection process an applicant receives positive feedback and is treated with

respect, (s)he will be satisfied because this situation matches his/her expectations. When feedback is negative but is conveyed in a respectful way, satisfaction will be lower, due to the disappointment and unexpectedness of this negative feedback. However, as stated by Greenberg (1993, 1994), this dissatisfaction may be attenuated because of the sensitivity with which one is treated, conveying some level of respect from the selectors to the candidate. Conversely, when an applicant is treated disrespectfully, we believe that satisfaction will be low regardless of the valence of the feedback message. When an applicant receives negative feedback in a disrespectful way, (s)he will be dissatisfied because the negative emotions due to a negative feedback message will be aggravated by the disrespectful treatment. When the feedback is positive but conveyed in a disrespectful manner, the satisfaction one would normally feel will be overruled completely by this (likely unexpected) negative treatment, leading to feelings of dissatisfaction in the applicant.

Thus, in the present study, we first extend the current knowledge of the factors that determine applicant reactions by examining the interactive effect between feedback valence and interpersonal treatment behavior on a candidate's satisfaction with his/her assessment. Second, we add to the literature by not only including behavior as an outcome (i.e. recommendation behavior) in our model, but as an antecedent as well (i.e. *actual* interpersonal treatment as assessed by trained raters).

Until now not much attention has been paid to investigating behavior as an antecedent in the context of selection. Most studies investigating applicants' treatment have focused solely on the *perceptions* of interpersonal treatment, rather than on the *actual* treatment behavior. Applicants' perceptions are, of course, an important outcome, but the tendency to ignore the actual treatment by the selectors is partly due to the difficulty of measuring the characteristics of the treatment objectively. One implicit assumption of the self-report approach is that how one is treated (i.e. respectful or disrespectful) is in the "eye of the beholder" (i.e. candidate) and that the perceived treatment corresponds closely to the actual treatment. Such an approach, however, may be of limited informational value to organizations as it may be that an actual respectful treatment has only minor influence on the applicants' perceptions. Therefore, in this study we did not

examine applicants' *perceptions of treatment*, but instead focused on the *actual treatment* a candidate received as observed by two independent raters of video footage.

Thus, in this study we investigated the relationship between feedback, satisfaction with feedback and the moderating influence of interpersonal treatment behavior. In sum, we expect interpersonal treatment behavior to moderate the relationship between the feedback message and satisfaction, independent of the selection decision. More specifically, we propose the following hypothesis:

> *Hypothesis 1*. Interpersonal treatment behavior will moderate the relationship between the feedback message and satisfaction with the feedback. Specifically, there will be a positive relationship between feedback and satisfaction when interpersonal treatment behavior is high, and no relationship when interpersonal treatment behavior is low.

An overview of all hypothesized relationships can be found in Figure 2.

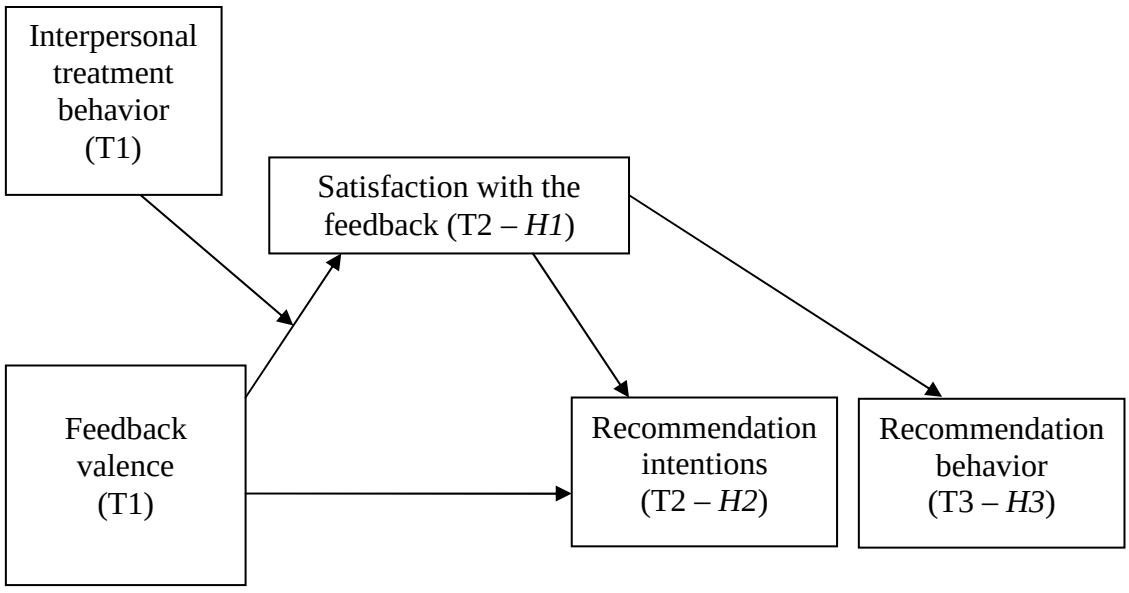

Figure 2. *Overview of the Proposed Relationships in this Study*

SATISFACTION AS AN ANTECEDENT OF RECOMMENDATION INTENTIONS AND RECOMMENDATION BEHAVIOR

Research has shown that recommendation intentions and behavior from applicants are important to organizations. Disgruntled employees or applicants may for instance actively attempt to dissuade others from entering the hiring process, and research has shown that they might discourage potential external applicants from joining the organization (Hausknecht et al., 2004). Companies can gain reputations for how they treat applicants during the selection process (Rynes, 1993), and these reputations may influence the ability of organizations to recruit high-quality applicants (Rynes & Barber, 1990; in Gilliland, 1993). Because of their importance and interest to employers, recommendation intentions and behavior are among the most studied outcomes in applicant reactions research, with intentions being more frequently examined than behavior (e.g., Bauer et al., 1998; Gilliland, 1994; Ployhart & Ryan, 1997, 1998; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993). However, in their review, Ryan and Ployhart (2000) came to the pessimistic conclusion that there was insufficient empirical evidence showing links from perceptions to behaviors or distal attitudes, leading them to question whether applicant perceptions really matter. In a recent theoretical overview, Gilliland and Steiner (2012) concluded that applicant reactions do matter for outcomes proximal to the selection process, but may be less important for distal outcomes. Therefore, we opted for recommendation intentions and behavior as proximal, but highly relevant outcomes of the selection process. Finally, in light of repeated calls for applicant perceptions research to go beyond attitudes and intentions and examine behavioral outcomes (e.g., Sackett & Lievens, 2008), in this study we investigated both recommendation intentions and (self-reported) behavior six months later.

Previous research has identified several important antecedents of behavioral intentions in the context of applicant reactions research. Amongst those are, for instance, selection fairness perceptions (e.g., Bauer et al., 1998; Ployhart & Ryan, 1997), attitudes towards tests (e.g., Chan, Schmitt, Jennings, Clause, & Delbridge, 1998), motivation (e.g., Bauer et al., 2006; Bell, Wiechmann, & Ryan, 2006) and the amount of explanation provided (e.g.,

Gilliland, 1994). However, to date research has underexplored the effects of providing feedback during the selection process and thus, overlooked how satisfied applicants are with the informational feedback provided. In feedback contexts, satisfaction with aspects of the appraisal process is regarded as one of the most important reactions to performance evaluation (e.g., Giles & Mossholder, 1990). More favorable attitudes develop when satisfaction with feedback is high. In the context of selection feedback, favorable feedback likely means that the applicant performed well on (at least some parts of) the selection tests which will align with self-perceptions people typically hold about themselves. Hence, it is likely that an applicant who received favorable feedback and sees this as a confirmation of his/her positive self-views, will also develop more favorable perceptions of the organization, and thus recommend the organization to others (for instance by telling others about his/her positive experience during the selection process). This assumption is also supported by other authors who stated that the various psychological implications of satisfaction with feedback make it a significant determinant of future behavior and job and organizational attitudes (Taylor, Fisher, & Ilgen, 1984; in Jawahar, 2007). Thus, we believe that satisfaction with feedback may increase the likelihood of positive recommendation intentions and behavior.

We expect the interaction between the feedback message and interpersonal treatment behavior to affect recommendation intentions and behavior through the experience of satisfaction. In terms of a recent framework for testing moderated mediation (Edwards & Lambert, 2007), the model tested here is a first stage moderation model without an interaction or direct effect of the independent variable and the moderator on the dependent variable (see Figure 2). Note that we will investigate the impact of this interaction on recommendation intentions in the short term (i.e. two days after the feedback was received) and on actual recommendation behavior displayed by candidates in the long term (i.e. six months after the feedback was received). We thus propose the following hypotheses:

Hypothesis 2. Satisfaction with feedback will mediate the relationship between the interaction of the feedback message and interpersonal treatment behavior and recommendation intentions at Time 2.

Hypothesis 3. Satisfaction with the feedback will mediate the relationship between the interaction of the feedback message and interpersonal treatment behavior and actual recommendation behavior at Time 3.

METHOD

PARTICIPANTS AND PROCEDURE

Using a long-term design we collected data on three points in time over the course of six months. Participants were candidates in the first round of the reality television show *'American Idol'* (Belgian version). The first measurement point concerned the auditions of all candidates in front of a professional jury (October-December 2010) (N = 409; 40.4% male, 59.6% female; mean age = 20.5, SD = 3.2). During this audition, candidates received a limited amount of time to perform (i.e. sing and/or play an instrument) in front of the judges. Immediately after the performance, candidates received comments and a selection decision from the judges. Of all 409 candidates, 76.5% received a negative decision and were not selected to go through to the next round, whereas 23.5% got a positive selection decision. For the second and third data collection wave, candidates received an e-mail with a brief description of the study, and the request to fill out the questionnaire. A first reminder e-mail was sent two days after the original e-mail, and a second reminder was sent four days after the original e-mail. The second data collection wave (November-December 2010) concerned the assessment of candidates' general emotions and reactions, and of specific behavioral intentions two days after the auditions (N = 204; 41.2% male, 58.8% female; mean age = 20.2, SD = 3.2; response rate = 50%). In the third data collection wave (April 2011) we again assessed candidates' reactions to the auditions and their self-reported display of actual recommendation behavior approximately six months after the auditions (N =

103; 36.9% male, 63.1% female; mean age = 20.2, *SD* = 3.1; response rate = 25%).

BEHAVIORAL MEASURES (T1) – CODER RATINGS

Two independent raters coded all the unedited footage from the auditions for aspects of how the feedback was communicated to the candidate by the four 'celebrity' judges who evaluated each participant. The observer training consisted of a full day intensive workshop in which two observers (final-year Psychology students) were instructed on how to use the observation checklists, developed by the first author. The observers were also given numerous behavioral examples for both behavioral variables in order to create high concordance among them when rating the footage. Further, the observation of video footage of the first 10 candidates was conducted simultaneously and discussed with the first author before continuing the observations of the footage of other candidates.

Feedback valence (T1). Raters used a rating scale from 1 (= *Negative feedback*) to 3 (= *Positive feedback*) to code for the *valence* of the feedback. Coding rules were as follows: '*Code this audition as 1 if the judges assess the skills of the candidate as bad', 'Code this audition as 2 if the judges assess the skills of the candidate as average'* and '*Code this audition as 3 if the judges assess the skills of the candidate as good'*. More detailed coding rules and examples for each of the three possible responses (i.e. 1, 2, 3) were provided for the raters. We calculated Cohen's kappa for the concordance of the coded data (Cohen, 1960). Inter-rater agreement was .78. See Table 1 for the number of cases in each condition. Note that this feedback valence is distinct from the actual selection decision, which is being used as a control variable.

Interpersonal treatment behavior (T1). Raters used a rating scale from 1 (= *Disrespectful treatment*) to 3 (= *Respectful treatment*) to code for the *treatment* the candidate was given. Coding rules were as follows: '*Code this audition as 1 if the judges express their comments to the candidate in a disrespectful and humiliating manner', 'Code this audition as 2 if the judges express their comments to the candidate in a neutral manner'* and '*Code this audition as 3 if the judges express their comments to the candidate in a*

respectful and considerate manner'. More detailed coding rules and examples for each of the three possible responses (i.e. 1, 2, 3) were provided for the raters. Inter-rater agreement for this variable was .73.

Table 1

Number of Cases for Decision Combined with Feedback Valence (N = 371)

Feedback valence	Losers (Decision = 0)	Winners (Decision = 1)	Total *N*
1 (= Bad)	174	4	178
2 (= Neutral)	78	19	97
3 (= Good)	35	61	96
Total *N*	287	84	371

CONTROL VARIABLES (T1)

Gender and selection decision (T1). Gender and selection decision were included as control variables in all analyses. Gender was included because of its relationship with the mediator (i.c., satisfaction with feedback) in the current study. We controlled for the selection decision (i.e. whether the candidate was allowed to continue) because the selection decision is considered the primary determinant of applicant reactions (Ryan & Ployhart, 2000), and our goal in this study was to see how feedback valence and interpersonal treatment affected reactions above and beyond the actual selection decision. We did not control for age as only candidates between the ages of 16 and 28 were allowed to participate, leading to a rather small age range.

MEDIATING AND OUTCOME MEASURES (T2 AND T3) – SELF REPORTS

Satisfaction with feedback (T2). We adapted three items developed by Greller (1978) to measure satisfaction with feedback. A sample item was '*I am satisfied with the assessment of my performance* '. Responses were made on a 5-point Likert-type scale ranging from 1 *(totally disagree)* to 5 *(totally agree)*. Internal consistency of this scale was .91.

Recommendation intentions (T2). We adapted three items developed by McCarthy, Hrabluik, and Jelley (2009) to assess recommendation intentions. A sample item was *'I intend to recommend my friends to participate in the next Idol-series'*. Responses were made on a 5-point Likert-type scale ranging from 1 *(totally disagree)* to 5 *(totally agree)*. Internal consistency of this scale was .80.

Recommendation behavior (T3, six months later). We used the same items as for recommendation intentions, and adapted them to assess actual self-reported behavior described by candidates. A sample item was '*I have recommended my friends to participate in the next Idol-series'*. Response scale was the same as for recommendation intentions. Internal consistency of this scale was .65.

We conducted confirmatory factor analysis in MPlus5 to examine the distinctiveness of our mediator (i.e. satisfaction with feedback; Time 2) and the outcome variable for Hypothesis 2 (i.e. recommendation intentions; Time 2). In a first model both observed variables were posited to load on a single latent factor. Conceptually, this model does not distinguish between the two observed variables. The second model hypothesized two distinct yet correlated latent factors, wherein satisfaction with feedback was hypothesized to load on the first latent factor, and recommendation intentions was hypothesized to load on the second factor. Conceptually, this model distinguished between the two dependent variables. The results of this analysis can be found in Table 2. The one-factor model showed no outstanding fit to the data. The two-factor model, however, fit the data significantly better than the one-factor model, so we can conclude that both constructs were empirically distinct from each other.

Table 2

Summary of Fit Statistics of Measurement Models Tested

Model	χ^2	df	χ^2/df	CFI	TLI	SRMR	AIC	BIC
One-factor model (all items loading on one latent factor)	146.45	9	16.27	.84	.73	.11	4345.74	4408.76
Two-factor model (Factor 1: Satisfaction with feedback) (Factor 2: Recommendation intentions)	30.57	8	3.82	.97	.95	.06	4231.86	4298.38

Note. CFI = comparative fit index; *TLI* = Tucker-Lewis index*; SRMR* = standardized root mean square residual; *AIC* = Akaike information criteria; *BIC* = Bayesian information criteria.

RESULTS

Correlations between study variables and descriptive statistics are presented in Table 3. In all further analyses, we controlled for selection decision and gender. As can be seen from this table, not surprisingly both the selection decision and feedback valence were positively associated with interpersonal treatment behavior, suggesting that in positively evaluated selections, candidates were treated with more respect. Interestingly, both decision and feedback were correlated with feedback satisfaction and recommendation intentions, but not related to recommendation behavior.

Table 3

Means (M), Standard Deviations (SD), and Intercorrelations among Demographic, Control, Independent, and Dependent Variables (N=409)

	M	*SD*	1.	2.	3.	4.	5.	6.	7.
1. Gender [a]									
2. Decision (T1)			-.05						
3. Feedback valence (T1)			-.03	.63**					
4. ITB[b] (T1)			.01	.44**	.48**				
5. Feedback satisfaction (T2)	2.55	1.42	-.14*	.64**	.52**	.46**	(.91)		
6. Rec. intentions (T2)	3.17	1.21	-.09	.46**	.35**	.31**	.65**	(.80)	
7. Rec. behavior (T3)	4.10	1.23	-.01	.18	.13	.16	.33**	.43**	(.65)

Note. Internal consistency reliabilities are reported in parentheses on the diagonal.
*$p < .05$, **$p < .01$
[a] Gender was dummy coded, with 0 = male and 1 = female.
ITB[b] = Interpersonal Treatment Behavior

HYPOTHESIS 1

To test Hypothesis 1, we conducted a regression analysis to see which predictors, including the interaction term of interpersonal treatment behavior and feedback valence, were statistically significant. Results are shown in Table 4. As hypothesized, the interaction between feedback valence and interpersonal treatment behavior was statistically significant ($\beta = .31$, $p < .05$) ($\Delta R^2 = .01$, $F(1,249) = 5.36$, $p < .05$). To determine if the pattern of the interaction was consistent with our hypothesis, we plotted the interaction in Figure 3. Standardized coefficients of the simple slopes were calculated by using the macros developed by O'Connor (1998). The standardized coefficients of the simple slopes show that only the slope for high interpersonal treatment behavior was significantly different from 0 ($\beta = .22$, $p < .01$). The slope for low interpersonal treatment behavior did not reach significance ($\beta = -.07$, $p > .05$). Thus, as predicted by Hypothesis 1, Figure 3 reveals that there is a positive relationship between feedback valence and satisfaction with the feedback when interpersonal treatment behavior is high, and no relationship when this is low. Hypothesis 1 was thus supported.

Table 4

Summary of Hierarchical Regression Analysis of Feedback Valence and Interpersonal Treatment Behavior on Satisfaction (H1) (N=409)

		Satisfaction with the feedback					
	Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Step 1	Gender	-.27	.14	-.09	-1.98	.04	.41†
	Decision	1.33	.20	.42	6.66	.00	
Step 2	Feedback valence	.19	.14	.09	1.36	.18	.04†
	ITB[a]	.33	.08	.23	3.91	.00	
Step 3	Feedback valence x ITB[a]	.31	.14	.12	2.32	.02	.01*

Note. Regression coefficients are for the final step.
Interpretation of acronyms: ITB[a] = Interpersonal treatment behavior
*$p < .05$, †$p < .001$.

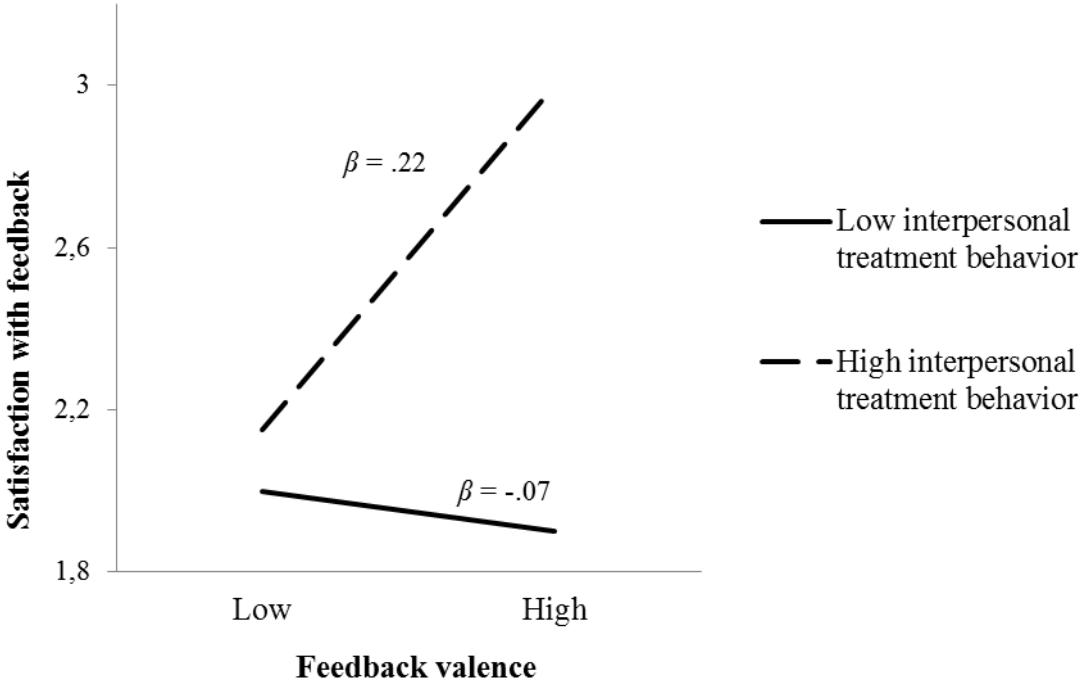

Figure 3. *Interaction of Feedback Valence and Interpersonal Treatment Behavior on Satisfaction with Feedback*

HYPOTHESIS 2

Hypothesis 2 predicted an indirect effect from the interaction between feedback valence and interpersonal treatment behavior on recommendation intentions through the mediator, satisfaction with the feedback. To test this moderated mediation, we used the procedures described in Edwards and Lambert (2007) for testing a Stage 1 moderation model with interpersonal treatment behavior as the moderator in the relationship between feedback valence and satisfaction with the feedback. Our hypothesis only concerned the test of whether the indirect effect from feedback valence on recommendation intentions through satisfaction with the feedback was significantly different for the two levels of the moderator interpersonal treatment behavior. Edwards and Lambert (2007) developed a bootstrapping procedure to test the difference between indirect effects at the different levels of the moderator. The upper part of Table 5 (1st part) presents the results of the first step of the analysis wherein satisfaction is regressed on the main and interaction effects of feedback valence and interpersonal treatment behavior. Next, we proceeded by regressing the dependent variable (recommendation intentions) on the main and interaction effects of feedback valence and interpersonal treatment behavior, and the main effect of satisfaction. As can be seen in the lower part of Table 5 (1st part), there was no direct statistically significant effect of the interaction between feedback valence and interpersonal treatment behavior on recommendation intentions. As noted by Edwards and Lambert (2007), a moderated mediation model does not necessarily imply a direct effect of the interaction on the dependent variable. Therefore, we tested the indirect effects from feedback valence to recommendation intentions for high and low interpersonal treatment behavior separately. As can be seen in Table 6 (1st part), there was no difference in the direct effects of feedback valence on recommendation intentions for both levels of interpersonal treatment behavior. However, the indirect effect of feedback valence on recommendation intentions was stronger for high than for low interpersonal treatment behavior. This is evidenced by a statistically significant difference between the two indirect effects ($p < .01$). Not only the indirect effects, but also the total effects were significantly different for both levels of interpersonal treatment behavior ($p < .05$). This indicates that the interaction

effect between feedback valence and interpersonal treatment behavior indirectly affected recommendations intentions through satisfaction. In sum, as can be seen from Table 6 (1st part), Hypothesis 2 was supported.

HYPOTHESIS 3

Hypothesis 3 predicted an indirect effect from the interaction between feedback valence and interpersonal treatment behavior on recommendation behavior (T3) through the mediator, satisfaction with the feedback. The same procedures as described for Hypothesis 2 were used. Our hypothesis only concerned the test whether the indirect effect from feedback valence on recommendation behavior through satisfaction was significantly different for the two levels of the moderator interpersonal treatment behavior. As can be seen in the lower part of Table 5 (2nd part), there was a direct statistically significant effect of the interaction between feedback valence and interpersonal treatment behavior on recommendation behavior. Further, as can be seen in Table 6 (2nd part), there was no difference in the indirect effects of feedback valence on recommendation behavior for both levels of interpersonal treatment behavior. However, we did find a difference in the direct and total effects of feedback valence on recommendation behavior for both levels of interpersonal treatment behavior ($p < .05$). This indicates that the interaction effect between feedback valence and interpersonal treatment behavior indirectly affected recommendation behavior through satisfaction. In sum, as can be seen from Table 6 (2nd part), Hypothesis 3 was supported.

Table 5

Coefficient Estimates of the First Stage Moderation Model with Satisfaction and Recommendation Intentions T2 (H2) (N = 204) and Recommendation Behavior T3 (H3) (N = 103)

Mediator Variable Model	(DV = Satisfaction) (H2)				(DV = Satisfaction) (H3)			
Predictor	*b*	*SE*	*t*	*p*	*b*	*SE*	*t*	*p*
Gender (control)	-.27	.14	-1.98	.04	-.27	.14	-1.98	.04
Decision (control)	1.33	.20	6.66	.00	1.33	.20	6.66	.00
Feedback valence (aX)	.19	.14	1.36	.18	.19	.14	1.36	.18
ITB[a] (aZ)	.33	.08	3.91	.00	.33	.08	3.91	.00
Feedback valence x ITB[a] (aXZ)	.31	.14	2.32	.02	.31	.14	2.32	.02

Dependent Variable Model	(DV = Rec. Int. T2) (H2)				(DV = Rec. Beh. T3) (H3)			
	b	*SE*	*t*	*p*	*b*	*SE*	*t*	*p*
Gender (control)	-.03	.12	-.21	.83	-.06	.20	-.29	.77
Decision (control)	.27	.19	1.39	17	.15	.30	.51	.61
Feedback valence (bX)	.01	.13	.08	.93	-.13	.20	-.63	.53
ITB[a] (bZ)	-.08	.08	-.92	.36	.05	.13	.42	.68
Satisfaction (bM)	.56	.06	9.40	.00	.21	.09	2.34	.02
Feedback valence x ITB[a] (bXZ)	-.07	.12	-.53	.60	.44	.19	2.27	.03

Note. Entries are unstandardized final-step coefficients. The mediator variable model tests the following equation, $M = a_0 + a_X X + a_Z Z + a_{XZ} XZ + e_M$. The dependent variable model test the following equation, $Y = b_0 + b_X X + b_M M + b_Z Z + b_{XZ} XZ + eY20$. The term $b_{MZ} MZ$ was not included in these models, as the first stage moderation model does not include an interaction between the moderator (interpersonal treatment behavior) and the mediator (satisfaction), in predicting the dependent variable (Edwards & Lambert, 2007). All predictor variables were centred prior to computing cross-product terms.

Note. Interpretation of acronyms: ITB[a] = Interpersonal treatment behavior

Table 6

Analysis of Simple Effects with Satisfaction and Recommendation Intentions T2 (H2) (N = 204) and Recommendation Behavior T3 (H3) (N = 103)

	(DV = Rec. Int. T2) (H2)					(DV = Rec. Beh. T3) (H3)				
	Stage		Effect			Stage		Effect		
Moderator variable	1st	2nd	Direct	Indirect	Total	1st	2nd	Direct	Indirect	Total
Low ITB[a]	.19	.56**	.01	.11	.12	.19	.21**	-.13	.04	-.09
High ITB[a]	-.12**	.65**	.08	-.08**	.00**	-.12**	.32	-.57	-.04	-.61*
Difference	.31**	-.09	-.07	.19**	.12*	.31**	-.11	.44*	.08	.52*

Note. Table entries are the results of the simple effects analysis of a first-stage moderation model with interpersonal treatment behavior as a moderator variable. For rows labeled low interpersonal treatment behavior and high interpersonal treatment behavior in the left panel, entries are simple effects for the different paths from feedback valence (independent variable) to satisfaction (mediator) computed using coefficient estimates from Table 5. For the right panel, we tested the indirect effects from feedback to recommendation intentions / recommendation behavior for low and high interpersonal treatment behavior separately, given that there were no differences in direct effects (see Table 5). Tests of differences for the indirect and total effect were based on bias-corrected confidence intervals derived from bootstrap estimates.

*p <.05, **p < .01

Note. Interpretation of acronyms: ITB[a] = Interpersonal treatment behavior

DISCUSSION

The current study aimed to extend current models of applicant reactions with insights from feedback theory informing organizations how they may enhance applicant reactions by providing positive feedback in a respectful manner. Most importantly, in line with our hypotheses, results showed that the interaction between feedback valence and interpersonal treatment behavior affected feedback satisfaction, even when controlling for the selection decision. When interpersonal treatment behavior was respectful, a positive feedback message led to higher satisfaction than a negative feedback message. Conversely, we found that when interpersonal treatment behavior was disrespectful, the level of satisfaction was the same for candidates receiving positive feedback and candidates receiving negative feedback. An important

conclusion for organizations is that the type of feedback given (positive or negative) makes little difference when the feedback is communicated in a disrespectful manner. Thus, these results show that treatment during feedback should take priority: If applicants are mistreated, they will be dissatisfied, regardless of feedback valence, and this will also indirectly affect how they act towards the organization.

Second, we found that the interaction between feedback valence and interpersonal treatment behavior (both *behavioral* measures) indirectly led to recommendation intentions and subsequent recommendation behavior through the experience of satisfaction with the feedback. Thus, the way people are treated and their resulting satisfaction in a selection context is important as it affects how applicants intend to behave and the way they report how they *actually* behaved six months later. The fact that we found effects of actual interpersonal treatment on intentions and behavior instead of perceptions is encouraging for organizations. It suggests that not everything is in the eye of the candidate, and that the way organizations handle the selection process and communicate the feedback to applicants, indeed makes a difference for subsequent reactions and behavior.

THEORETICAL AND PRACTICAL IMPLICATIONS

From a theoretical perspective, our findings suggest that feedback content is a crucial, but underexplored component to understand applicants' reactions, even beyond the selection decision. Our study showed that the *content* of the feedback received interacted with interpersonal treatment in impacting on applicant perceptions, intentions and behavior. We believe that these results, together with Anseel and Lievens's (2009) findings call for more research attention towards the feedback phase of the selection process. In addition, the effects of actual interpersonal treatment of applicants has, to our knowledge, received little prior attention in the literature. The present study addressed this gap, showing the important effects of actual interpersonal treatment on applicant reactions and later behavior.

From a practical perspective, we expect interpersonal treatment to be relatively easy to manage by the organization. Organizations can train selectors

in providing feedback in a respectful manner to candidates, or standardize rules as to how feedback should be communicated. One of the conclusions of a review on applicant perceptions and reactions was that more attention should be devoted to providing explanations that give information and are delivered in an interpersonally sensitive manner (Ryan & Ployhart, 2000). By observing and coding the actual treatment candidates received, we were able to show that not only perceptions matter, but actual treatment of applicants does as well. The insights from the present study can be a first step for scholars and practitioners to develop guidelines for respectful treatment that can be used in the context of selection decisions and contexts in which feedback is given. We believe that the feedback literature should be particularly helpful here as previous feedback research has extensively documented the feedback characteristics that lead to more favorable feedback reactions.

POTENTIAL LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

A first limitation concerns the context in which this study was conducted. Hausknecht et al. (2004) argued that studies examining applicant reactions should be conducted with actual applicants in actual organizations in order to draw warranted conclusions. As this study was not conducted in an actual employment setting, this criticism may apply to the current study. However, as the context of this reality television show is a high-stakes one closely related to candidates' professional aspirations and decisive for their future careers, we believe the mechanisms that play a role in this study will also be important in organizational selection contexts. In our study, candidates participating in the auditions performed maximally in front of expert judges who evaluated them and who, after deliberation, made the ultimate selection decision. A second limitation is that we had no pre-audition data available in this study, which prevented us from adopting a truly longitudinal change design. However, our interest lay primarily in examining how feedback aspects affected reactions in the short and the long term. Future research, however, may benefit from taking a longitudinal perspective to examine how informational feedback and the way it is provided affects people's self-views. Third and finally, in this study we used self-rated recommendation behavior as a dependent variable.

However, we believe that using self-reports is the most practical way to assess the actual behavior people have displayed.

CONTRIBUTION AND CONCLUSION

Our study contributes to the literature on applicant reactions in two important ways. First, our results provide new evidence that informational feedback is an important factor to consider when investigating applicant reactions, even when negative selection decisions are communicated. By providing positive performance feedback in an interpersonally sensitive manner, organizations may enhance applicants' feedback satisfaction and their recommendation intentions and behavior. Second, our study adopted a new approach in the study of applicant reactions by assessing the actual behavior displayed by the selectors, and showing that this actual interpersonal treatment behavior and the actual feedback communicated affected applicants' reactions and later behavior, thus going beyond just applicants' perceptions of treatment. We believe that the current findings are a first step in painting a more complete picture of the effects of informational feedback and interpersonal feedback treatment on applicant reactions, and that they are a first step in developing effective guidelines for selectors, hiring managers, and organizations.

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CHAPTER 6

RESPONSES TO CO-WORKERS RECEIVING RECOGNITION AT WORK[1]

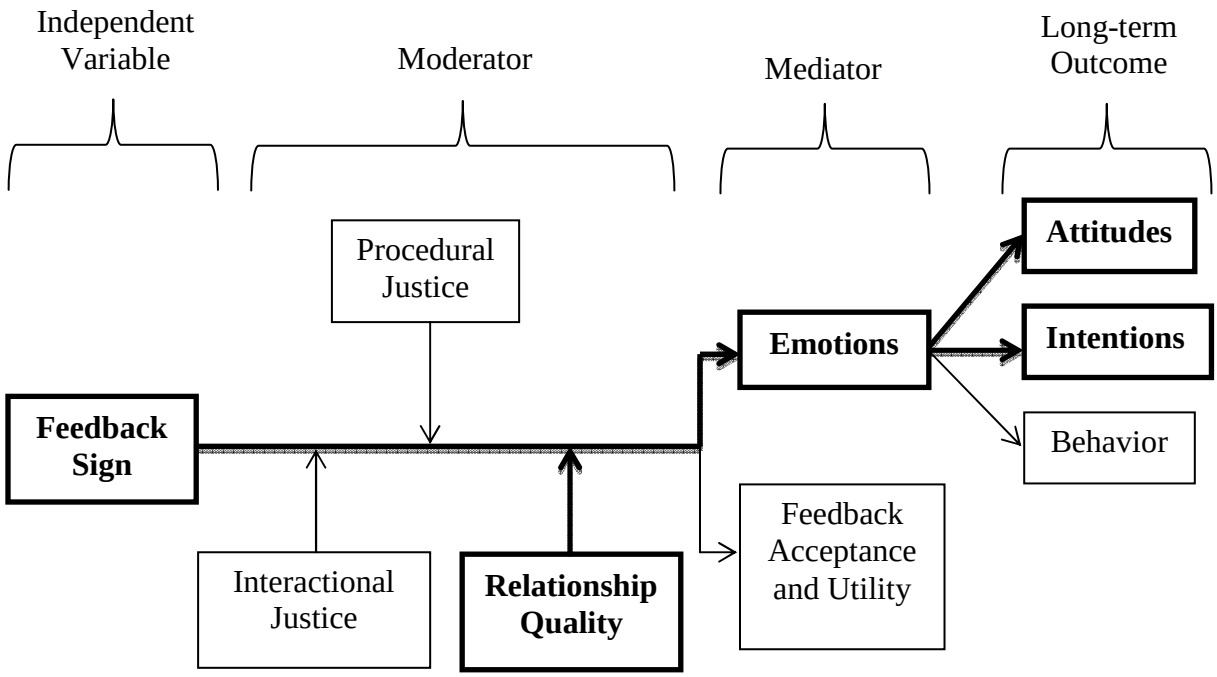


Figure 1. *Chapter 6 Situated in the Working Model of this Dissertation*

[1] This chapter is largely based on: Feys M., Anseel, F., & Wille, B. (in press). Responses to co-workers receiving recognition at work. *Journal of Managerial Psychology*.

ABSTRACT

The purpose of this paper is to examine the impact of co-workers receiving recognition on three types of responses, namely emotions (positive and negative), behavioral intentions (interpersonal counterproductive and interpersonal citizenship behavior) and attitudes (affective organizational commitment). This study is a scenario study with a 2x2 between-subjects design with 246 employees from a local health care organization. The findings reveal that the relationship between other's recognition and positive or negative emotions was moderated by the quality of the relationship between both actors. Further, as hypothesized, the experience of negative emotions mediated employees' intentions to engage in interpersonal counterproductive behavior, whereas the experience of positive emotions mediated employees' level of affective organizational commitment. We did not find a mediating effect of positive emotions on the intention to engage in interpersonal citizenship behavior. These results provide useful suggestions for managers to diminish undesired (i.c., interpersonal counterproductive behavior) and enhance desired attitudes and behaviors (i.c., interpersonal citizenship behavior and affective organizational commitment).

INTRODUCTION

In organizations, employee recognition is one of the motivational strategies that is gaining more and more attention and importance (e.g., Brun & Dugas, 2008; Long & Shields, 2010). Research concerning the effects of employee recognition, typically conceptualized as the assignment of personal non-monetary rewards to reinforce desired behaviors displayed by an employee, after these behaviors have occurred (McAdams, 1999) shows promising results (e.g., Grawitch, Gottschalk, & David, 2006), leading managers to conclude that recognition programs are highly effective motivational instruments.

However, before unambiguously recommending such strategies for enhancing employee morale, research should also examine potential negative side effects. The main focus of quantitative and qualitative reviews has been to examine the positive impact employee recognition has on task performance and other positive work-related outcomes (e.g., Greenberg & Ornstein, 1983;

Stajkovic & Luthans, 1997, 2001, 2003). In contrast to this perspective, we argue that employee recognition might also have negative effects that have been largely overlooked. Within groups and organizations, employees might not only receive recognition themselves, but frequently witness others receiving recognition, be it directly (e.g., by observations) or indirectly (e.g., by stories). Thus, a crucial question to address is how the recognition given to others will impact on colleagues' individual and organizational responses.

In the present study, we examine the potential impact of other's recognition on one's own emotions and responses directed towards the individual and the organization, namely intentions to engage in interpersonal counterproductive behavior (CWB-I), interpersonal citizenship behavior (OCB-I), and affective organizational commitment (AOC). Research has shown that these outcomes are crucial to organizations as they may have important and long-lasting effects on employees and the organization as a whole (e.g., Meyer, Stanley, Herscovitch, & Toplonytsky, 2002; Pearson & Porath, 2005; Podsakoff & MacKenzie, 1997).

On the basis of insights from social comparison theory, we expect relationship quality to determine when other-oriented recognition will lead to positive or negative affect and subsequent individually or organizationally targeted behaviors and attitudes. More specifically, by testing three moderated mediation models we investigate how having a high or low quality relationship with the receiving person influences whether or not recognition will lead to CWB-I through the experience of negative affect on the one hand and to OCB-I and AOC through the experience of positive affect on the other hand. Thus, the theoretical contribution of our study to the literature on employee recognition is threefold: First, we document the understudied effects of recognition on co-workers' emotions, attitudes and behavior. Second, we extend current knowledge by investigating the affective mechanisms that link other's recognition to one's own behavior and attitudes. Finally, our third contribution concerns a better insight in the specific conditions (i.c., relationship quality) under which these responses will occur.

EMPLOYEE RECOGNITION

For many years, there has been a debate about the role of monetary incentives in motivating employees (see Gerhart, Rynes, & Fulmer, 2009). Therefore, authors have recently called for searching alternative means of motivating employee behavior (Long & Shields, 2010). To meet the demands for more non-monetary incentives, scholars have introduced the concept of 'non-cash employee recognition' (e.g., Brun & Dugas, 2008). Empirical studies have consistently demonstrated that the use of employee recognition yields positive results in organizations, leading to an uncritical adoption of these practices in organizations (e.g., Stajkovic & Luthans, 2001, 2003). However, Long and Shields (2010) were among the first to challenge the dominant assumption in the literature, claiming that non-cash recognition programs are not at all problem free and may cause an atmosphere of 'winners' and 'losers'. However, to date their suggestion remains untested and currently the research on potential negative side effects is limited. This is unfortunate, as a good theoretical understanding of the effects of employee recognition involves a systematic test of all outcomes, also indirect ones, and their boundary conditions.

In the remainder we argue that witnessing co-workers receiving recognition may potentially lead to maladaptive interpersonal outcomes (i.c., CWB-I) through the experience of negative emotions. In addition, we argue that recognition may lead to adaptive interpersonal (i.c., OCB-I) and organizational outcomes (i.c., AOC) through the experience of positive emotions. However, we argue that these effects will only occur under certain well-defined circumstances. More specifically, we expect that the quality of the relationship between the actors involved will moderate the relationship between recognition and emotions.

RELATIONSHIP QUALITY

Research has shown that people tend to engage in friendships with people they perceive as being similar to them (Adams & Blieszner, 1994). High quality relationships at work are thus more likely to be characterized by similarity perceptions between co-workers. Hence, we expect that own

responses to the treatment of a colleague might be influenced by these perceptions of (dis)similarity. According to social comparison theories, when people perceive themselves as being similar to another, they believe that they are able to attain the same status and rewards as the other person (Lockwood & Kunda, 1997). The process of comparing oneself to a similar other is called assimilation, and is usually accompanied by experiencing positive affect (Buunk, Zurriaga, Peiro, Nauta, & Gosalvez, 2005). Hence, we expect that when one of two colleagues in a high quality relationship receives positive recognition, the other will feel good because the person believes (s)he might be able to gain the same recognition in the future the friend/colleague has received. In contrast, when one of both employees receives criticism, the other will experience negative emotions because this negative recognition could also apply to him/her.

The counterpart of the assimilation process is called a contrast effect, which emerges when someone perceives oneself as dissimilar to the other. The contrast effect generally leads to negative affect towards the person receiving praise or rewards (e.g., Ambrose, Harland, & Kulik, 1991). Hence, we expect that for colleagues in a low quality relationship receiving positive recognition, the observer will feel bad because (s)he believes (s)he might not be able to receive the same praise the colleague has received. In contrast, when such a co-worker receives criticism, the other will experience positive emotions because such a negative recognition suggests that the other is not better than him/her.

Although few studies have examined whether relationship quality between co-workers has an influence on their reactions at work, research has shown that relationship quality between an employer and employee is important for employee reactions to praise or criticism by the supervisor. One of the first studies investigating the quality of the relationship between supervisor and subordinate found that a high-quality relationship between both parties was associated with more favorable reactions after praise or criticism, whereas a low-quality relationship was associated with unfavorable employee reactions (Snyder, Williams, & Cashman, 1984). In two studies, Feys, Libbrecht, Anseel and Lievens (2008) found that relationship quality moderated the relation between performance appraisal justice perceptions and employee reactions. A

recent social relations analysis of peer ratings of performance shows that the interpersonal relationship component explained the most variance in performance ratings, more than the ratee or rater component (Greguras, Robie, Born, & Koenigs, 2007). These results suggest that when it comes to interpreting and reacting to co-workers' recognition for performance, the nature of the relationship is an important factor to consider.

In sum, we expect relationship quality to moderate the relationship between employee recognition and emotions. More specifically, we propose the following hypotheses:

> *Hypothesis 1a*. Relationship quality will moderate the relationship between recognition and positive affect: There will be a positive relationship when relationship quality is high, and a negative relationship when relationship quality is low.
>
> *Hypothesis 1b*. Relationship quality will moderate the relationship between recognition and negative affect: There will be a positive relationship when relationship quality is low, and a negative relationship when relationship quality is high.

EFFECTS TOWARDS CO-WORKERS

NEGATIVE EMOTIONS AS ANTECEDENTS OF CWB-I

We focus on CWB-I, such as verbal or physical abuse or more passive acts, such as purposely failing to help a co-worker or doing work in an incorrect manner (Fox, Spector, & Miles, 2001). Over the years, the occurrence of counterproductive behavior has increased dramatically in organizations (O'Leary-Kelly, Griffin, & Glew, 1996). Research has shown that engaging in CWB-I is affected by social comparison. Lam, Van der Vegt, Walter and Huang (2011) recently found that comparison to a higher performing team member was positively associated with CWB-I. Moreover, research has shown that when an employee's performance is compared to other's performance, the perceived identity threat that follows may trigger interpersonally harmful behavior

(Aquino & Douglas, 2003). Therefore, we believe CWB-I may be a first important response to other's recognition.

Previous research has identified several factors that predict CWB, such as individual differences (e.g., Sackett & DeVore, 2001) and situational factors (e.g., Andersson & Pearson, 1999). However, probably the most important and proximal antecedent is the emotional state of the person (Martinko, Douglas, & Harvey, 2006). This is in line with the stressor-emotion model of CWB (Spector & Fox, 2005) that portrays CWB as an emotion-based response to stressful or unwanted organizational conditions (Fox & Spector, 1999). People monitor and appraise events in the environment, and occurrences that are seen as threats to wellbeing are likely to induce negative emotional reactions, such as anger or anxiety (Spector, 1998). Research has shown that individuals experiencing such negative affect are more likely to act aggressively (Berkowitz, 1993). In organizational research, negative emotions have been found to either directly predict CWB (e.g., Andersson & Pearson, 1999), or appear as a mediator in the relationship between negative work events and CWB (e.g., Fox et al., 2001).

Thus, negative emotions experienced in relation towards another person may increase the likelihood of CWB-I (e.g., Robinson & Bennett, 1995). Engaging in such behavior can help the person experiencing negative emotions to reduce the frustration with feeling inferior or mistreated (e.g., Fox & Spector, 1999) and serve as an affect-regulation technique (Bushman, Baumeister, & Phillips, 2001). Thus, we expect that to equalize positions between the person receiving the recognition and the person witnessing it, the latter may turn to harming the other. Cohen-Charash (2009) for instance noted that most research has shown that behavioral reactions to negative emotions involve harming others (Mouly & Sankaran, 2002). In sum, we predict that negative emotional reactions following third-party recognition will result in the exhibition of CWB-I.

Finally, we expect the interaction between third-party recognition and relationship quality to affect CWB-I through the experience of negative affect. As we have no strong reasons to expect that this interaction will have a direct effect on CWB-I, we expect only an indirect effect. In terms of a recent framework for testing moderated mediation (Edwards & Lambert, 2007), the model tested here (and in the following hypotheses) is a first stage moderation

model without an interaction or direct effect of the independent variable and the moderator on the dependent variable (see Figure 2). We therefore propose the following hypothesis:

> *Hypothesis 2.* Negative emotions will mediate the relation between the interaction of recognition and relationship quality and interpersonal counterproductive behavior.

POSITIVE EMOTIONS AS ANTECEDENTS OF OCB-I

Next, we argue that the experience of positive emotions as a result of other's recognition might lead to OCB-I. We again focus on the interpersonal aspect of this outcome, such as voluntarily helping co-workers to be more productive, and providing interpersonal support (Settoon & Mossholder, 2002). Spence, Ferris, Brown and Heller (2011) lament that until now virtually no research has been conducted to examine when employees engage in such helping behaviors. In their study, these authors found that social comparison between co-workers had an indirect effect on OCB-I through positive affect. Therefore, in our study we expect OCB-I to be affected by other's recognition.

Previous research has identified several factors that predict OCB, such as individual differences (e.g., Cohen-Charash & Spector, 2001) and situational variables (e.g., LePine, Erez, & Johnson, 2002). However, Spector and Fox (2002) suggest that positive emotions as reactions to certain events should be regarded as the proximal cause of OCB. Extrapolating from their model, one could even argue that individuals high on positive affect would typically engage in OCB, and individuals high on negative affect will typically engage in CWB (Dalal, 2005).

The assumption that positive emotions will lead to OCB is also supported by a substantial body of social psychological research that has shown that being in a positive mood state generally encourages the display of helping behavior and cooperation (e.g., Isen & Baron, 1991). Fredrickson (2001) argues that positive emotions trigger other responses than negative emotions, and research shows that individuals with positive feelings are more willing to engage in altruistic and helping behaviors (Clark & Isen, 1982). Emotion-centered

models of voluntary work behaviors also posit that organizational stimuli elicit emotions, which in turn, affect willingness to engage in OCB-I (e.g., Miles, Borman, Spector, & Fox, 2002). As such, positive feelings will enhance employees' tendency to engage in helping behaviors such as OCB-I (Frijda, 1988).

In sum, we predict that positive emotional reactions following third-party recognition will result in the exhibition of OCB-I. Further, we expect the interaction between third-party recognition and relationship quality to affect OCB-I through the experience of positive affect. As we have no strong reasons to expect that this interaction will have a direct effect on OCB-I, we expect only an indirect effect. Thus, we propose the following hypothesis:

> *Hypothesis 3.* Positive emotions will mediate the relation between the interaction of recognition and relationship quality and interpersonal citizenship behavior.

EFFECTS TOWARDS THE ORGANIZATION

POSITIVE EMOTIONS AS ANTECEDENTS OF AOC

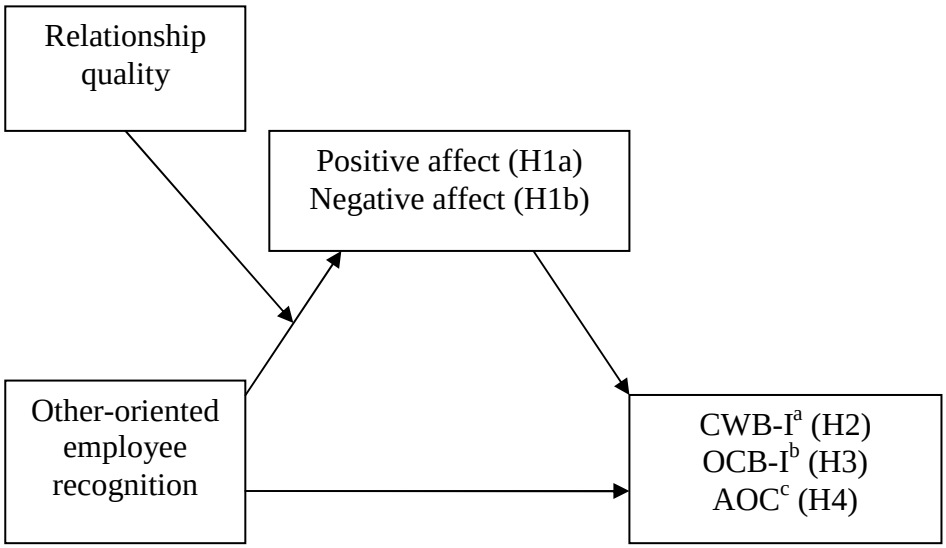
The previous hypotheses investigate the influence of other-oriented recognition on two interpersonally aimed outcomes, namely CWB-I and OCB-I. However, while examining these outcomes is crucial as they can have effects on the interpersonal relationships between co-workers, they may have less direct short-term implications for an organization. We believe that next to interpersonal outcomes recognition might lead to other, more organizationally relevant outcomes as well. Therefore, to take our study one step further, we argue that other-oriented recognition will also lead to feelings of AOC through the experience of positive emotions. Previous research has shown that AOC is one of the main factors determining important organizational outcomes, such as turnover, absenteeism and job performance (Meyer et al., 2002). Earlier research on social comparison argued that AOC is thought to develop through a social exchange mechanism, whereby commitment is exchanged in return for positive workplace experiences (Brown, Ferris, Heller, & Keeping, 2007; Meyer & Allen, 1997).

Affective events theory (Weiss & Cropanzano, 1996) assumes that situational determinants of affective states are closely related to employees' organizational attachments, and that the features of an employee's work environment lead to the occurrence of positive and/or negative 'affective events'. Experiencing these events will then lead to specific affective states, which in turn contribute to the formation of work attitudes such as commitment and identification. Because features of the work environment also directly influence attitudes, affective states and organizational attachments are intercorrelated as they both reflect the 'mind-set' of an employee's daily work experiences. As argued by Thoresen, Kaplan, Barsky, Warren and De Chermont (2003, p. 917), "*recurring positive experiences should foster affinity and identification with the organization*". Thus, positive affective reactions towards work events should contribute directly to the development of affective commitment. However, we believe that the relative absence of unpleasant feelings at work will not be sufficient to engender active emotional attachment to the organization, and thus negative reactions should not be related to AOC. These theoretical arguments are supported by empirical studies showing that positive affect and AOC are indeed significantly correlated. In three recent studies, correlations between positive affect and AOC ranged from .28 to .43 (Fisher, 2002; Herrbach, 2006; Kluemper, Little, & De Groot, 2009).

In sum, we predict that positive emotional reactions following third-party recognition will result in the exhibition of AOC. Further, we expect the interaction between third-party recognition and relationship quality to affect AOC through the experience of positive affect. As we have no strong reasons to expect that this interaction will have a direct effect on AOC, we expect only an indirect effect. Thus, we propose the following hypothesis:

> *Hypothesis 4.* Positive emotions will mediate the relation between the interaction of recognition and relationship quality and affective organizational commitment.

An overview of all hypothesized relationships can be found in Figure 2.



Note. Interpretation of acronyms: CWB-I[a] = Interpersonal Counterproductive Behavior; OCB-I[b] = Interpersonal Citizenship Behavior; AOC[c] = Affective Organizational Commitment

Figure 2. *Overview of the Proposed Relationships between Study Variables*

METHOD

PARTICIPANTS AND PROCEDURE

Participants were administrative employees in a large Belgian health care organization (81% female). Their ages ranged from 21 to 62 years (M = 39, SD = 11). An informal communication environment characterized the organizational culture with frequent interactions between different staff levels, both in vertical and horizontal direction. Before dispersing the questionnaires an informative meeting was held for all members of the administrative staff (N = 403). After the meeting, employees willing to participate were able to fill out a questionnaire and put it in a box in a separate room. Participation was voluntary. Two hundred and forty-six employees filled out the questionnaire, yielding a response rate of 61%.

Four scenarios were developed reflecting the four experimental conditions. Participants were randomly assigned to one of the four conditions. An overview of descriptive statistics across all conditions can be found in Table 1. In using scenarios, we followed Belschak and den Hartog (2009) who also indirectly induced emotions by means of vignettes, and Bui and Pelham (1999)

who offered social comparison information directly to the participants in the study. The primary advantage of using scenarios is that they control internal validity and can be used to test causal relations.

Instructions were as follows:

> "*Think about a specific person in your organization whom you frequently work with but you don't/do get along with. This colleague is never/always there for you and you have the feeling you can't/can trust him/her. You can't/can talk to this person about personal things, and you are not at all/are inclined to meet this person beyond working hours. The person you are thinking about receives praise/criticism from your supervisor. According to this supervisor, your colleague is doing an excellent/lousy job and (s)he is one of the best/worst performers in your department. Your supervisor is really pleased/not pleased at all about your colleague's performance and is extremely satisfied/dissatisfied with him/her.*"

The study was a 2 (positive versus negative *recognition*) x 2 (good versus poor *relationship quality*) between-subjects design. To minimize demand effects, we used a between-subjects design with participants rating only one scenario instead of a within-subjects design with participants rating all scenarios. Finally, respondents were asked to complete several questionnaires concerning work attitudes and work behaviors that were part of a larger survey.

Table 1

Descriptive Statistics across Experimental Conditions

Scenarios	*N*	PA (*M / SD*)	NA (*M / SD*)	OCB-I (*M / SD*)	CWB-I (*M / SD*)	AOC (*M / SD*)
Scenario 1 (High ER[a], High RQ[b])	60	5.12 (.99)	1.38 (.66)	3.69 (.74)	1.23 (.48)	3.14 (.91)
Scenario 2 (Low ER[a], High RQ[b])	62	2.18 (1.16)	3.23 (1.13)	3.87 (.69)	1.45 (.57)	3.08 (.75)
Scenario 3 (High ER[a], Low RQ[b])	58	2.59 (1.27)	3.94 (1.64)	3.54 (.77)	1.53 (.66)	2.77 (.75)
Scenario 4 (Low ER[a], Low RQ[b])	66	3.38 (1.38)	2.09 (1.14)	3.76 (.66)	1.29 (.44)	3.17 (.80)

Interpretation of acronyms: ER[a] = Employee recognition; RQ[b] = Relationship quality

MEASURES

Control measures. Studies indicate that men tend to be more aggressive and engage more in counterproductive behaviors than women (e.g., Fesbach, 1997). Further, the organizational literature (e.g., Geen, 1990) suggests that age is related to the incidence of workplace aggression, with younger employees engaging more in such unwanted behaviors. Therefore, we included gender and age as control variables in all regression analyses.

Positive and negative affect. Affective states were measured using the 12-item questionnaire by Belschak and den Hartog (2009). After reading the scenario, respondents got the following instructions: "*To what extent do you feel the following emotions towards X?*" Next, they rated the items on a 7-point Likert-type scale ranging from 1 (*very weakly*) to 7 (*very strongly*). Sample items are '*proud*', and '*happy*' for positive affect, and '*disappointed*', and '*frustrated*' for negative affect. Internal consistencies of the scales were .86 (positive affect) and .87 (negative affect).

Intentions to engage in CWB-I. Respondents completed four items from Kelloway, Loughlin, Barling and Nault (2002) that represent CWB-I on a 5-

point Likert-type scale ranging from 1 *(totally disagree)* to 5 *(totally agree).* Upon reading the scenario and before filling out the questionnaire, respondents were asked: *"I would be inclined to display the following behavior"*. A sample item is '*Spreading rumours about my colleagues'*. Internal consistency of this scale was .90.

Intentions to engage in OCB-I. Respondents completed the six items formulated by Konovsky and Organ (1996) that represent OCB-I on the same 5-point Likert-type scale. The same question as for CWB-I preceded this questionnaire. A sample item is '*Help others who have heavy work loads'*. Internal consistency of this scale was .87.

AOC. Affective organizational commitment was measured using six items of Meyer, Allen and Smith (1993). Respondents were asked to rate the items on the same 5-point Likert-type scale. A sample item is '… *this organization has a great deal of personal meaning for me*'. Internal consistency of this scale was .90.

RESULTS

Correlations between study variables and descriptive statistics are presented in Table 2. In all analyses, we controlled for gender and age.

Table 2

Inter-correlations of Study Variables (N = 246)

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Gender [a]											
2. Age	38.7	10.59	-.28**								
3. ER[b]			.03	-.03							
4. RQ[b]			-.14*	.03	.02						
5. Positive affect	3.33	1.65	-.07	.02	.33**	.20**	(.86)				
6. Negative effect	2.64	1.54	-.02	-.21**	-.00	-.22**	-.40**	(.87)			
7. OCB-I	3.72	.72	.09	.09	-.14*	.09	.02	.01	(.87)		
8. CWB-I	1.37	.55	-.16*	-.14	-.00	-.05	-.07	.30**	-.17*	(.90)	
9. AOC	3.05	.81	-.12	.11	-.09	.08	.24**	-.19**	.42**	-.03	(.90)

Note. [a]Gender was dummy coded, with 0 = male and 1 = female.
Interpretation of acronyms: ER = Employee Recognition; RQ = Relationship Quality; OCB-I = Interpersonal Citizenship Behavior; CWB-I = Interpersonal Counterproductive Behavior; AOC = Affective Organizational Commitment.
[b]Manipulations in ER and RQ were dummy coded, with 0 = poor relationship quality / negative recognition and 1 = good relationship quality / positive recognition.
Internal consistency reliabilities are reported in parentheses on the diagonal.
* $p < .05$, ** $p < .01$ (two-tailed).

MANIPULATION CHECKS

To test the effectiveness of both manipulations, respondents were asked '*How do you perceive the recognition given to the co-worker?*' and '*How do you perceive the quality of the relationship between both co-workers?'* on a 5-point Likert-type scale, with, respectively *1 = Very negatively/poor* and *5 = Very positively/good*. The effect of recognition on the first manipulation check was statistically significant, $F(1,238) = 57.13$, $p < .001$, $\eta^2 = .20$. The mean ratings differed significantly from one another in the expected direction. The effect of relationship quality on the second manipulation check was also statistically significant, $F\ (1,239) = 212.10$, $p < .001$, $\eta^2 = .47$. Again, mean ratings differed significantly from one another in the expected direction. Thus, the manipulation checks show that both manipulations had the desired effect.

HYPOTHESES 1A AND 1B

To test Hypothesis 1a, we conducted regression analysis to see which predictors, including the interaction term of relationship quality and recognition, were statistically significant. Results are shown in Table 3 (1st part). As hypothesized, the interaction between recognition and relationship quality was statistically significant ($\Delta R^2 = .47$, $F(5,234) = 41.89$, $p < .001$). To determine if the pattern of the interaction was consistent with our hypothesis, we plotted the interaction in Figure 3. Standardized coefficients of the simple slopes were calculated by using the macros developed by O'Connor (1998). Both slopes were significantly different from zero ($p < .001$). As predicted by Hypothesis 1a, Figure 3 reveals that there is a stronger positive relationship between positive recognition and positive emotions when relationship quality is high, and a negative relationship when this is low. In contrast, there is a positive relationship between negative recognition and positive emotions when relationship quality is low, and a positive relationship when this is high. Hypothesis 1a was thus supported.

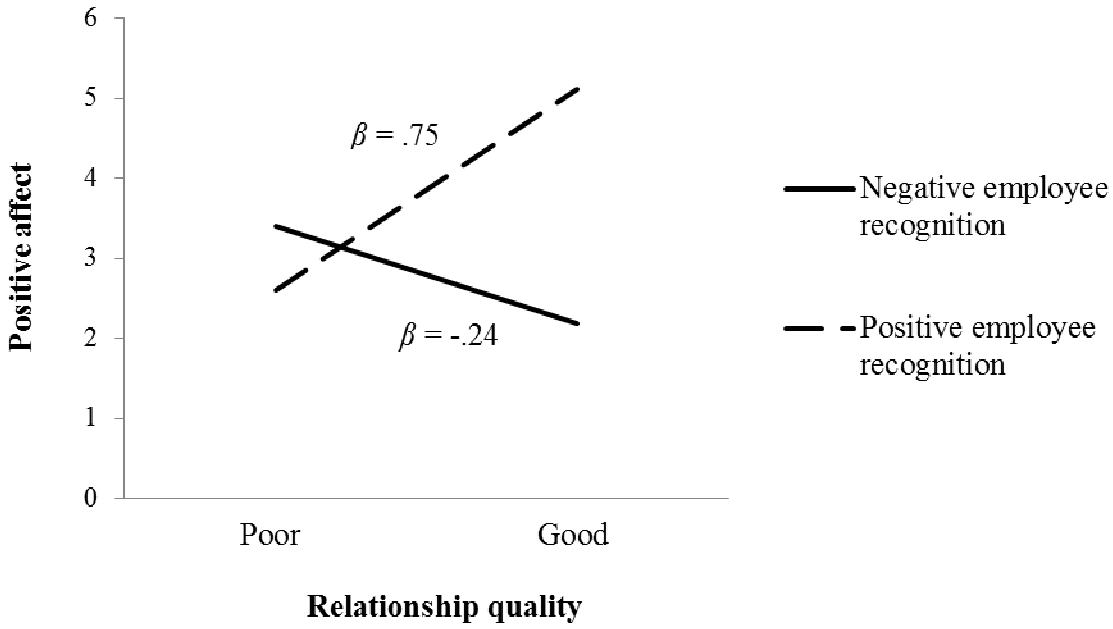


Figure 3. *Interaction of Employee Recognition and Relationship Quality on Positive Affect*

Next, we tested whether the interaction effect as proposed by Hypothesis 1b was statistically significant. As can be seen in Table 3 (2nd part), this was indeed the case (ΔR^2 = .44, $F(5,234)$ = 36.13, $p < .001$). Here as well, both slopes in Figure 4 were significantly different from zero ($p < .001$). Results are thus consistent with our predictions: there is a positive relationship between positive recognition and negative emotions when relationship quality is low, and a negative relationship when this is high. In contrast, there is a positive relationship between negative recognition and negative emotions when relationship quality is high, and a negative relationship when this is low. Thus, Hypothesis 1b was supported.

Table 3

Summary of Regression Analysis (N=246)

	Positive affect (H1a)						Negative affect (H1b)					
Variable	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2	*b*	*SE(b)*	*ß*	*t*	*p*	ΔR^2
Gender	-.27	.21	-.07	-1.30	.20	.47†	-.37	.20	-.09	-1.82	.07	.44†
Age	-.01	.01	-.06	-1.22	.23		-.02	.01	-.16	-3.07	.00	
ER[a]	1.08	.16	.33	6.90	.00		-.01	.15	-.00	-.07	.95	
RQ[b]	.56	.16	.17	3.55	.00		-.67	.15	-.22	-4.36	.00	
ER[a] x RQ[b]	3.78	.32	.58	12.02	.00		-3.58	.31	-.58	-11.76	.00	

Note. †p < .001.

b are unstandardized final-step coefficients; *ß* are standardized final-step coefficients.

Interpretation of acronyms: ER[a] = Employee recognition; RQ[b] = Relationship quality

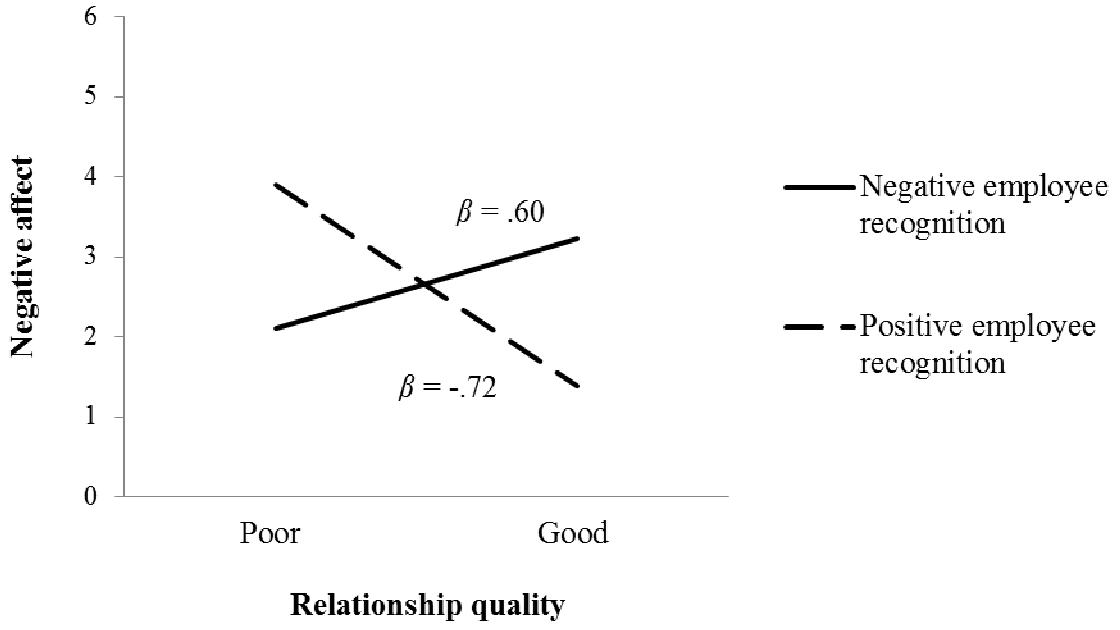


Figure 4. *Interaction of Employee Recognition and Relationship Quality on Negative Affect*

HYPOTHESIS 2

Hypothesis 2 predicted an indirect effect from the interaction between recognition and relationship quality on CWB-I through the mediator, negative affect. To test this moderated mediation, we used the procedures described in Edwards and Lambert (2007) for testing a Stage 1 moderation model with relationship quality as the moderator in the relationship between recognition and negative affect. Our hypothesis only concerned the test whether the indirect effect from recognition on CWB-I through negative affect was significantly different for the two levels of the moderator relationship quality. Edwards and Lambert (2007) developed a bootstrapping procedure to test the difference between indirect effects at the different levels of the moderator. The upper part of Table 4 presents the results of the first step of the analysis wherein negative affect is regressed on the main and interaction effects of recognition and relationship quality. Next, we proceeded by regressing the dependent variable (CWB-I) on the main and interaction effects of recognition and relationship

quality, and the main effect of negative affect. As can be seen in the lower part of Table 4, there was no direct statistically significant effect of the interaction between recognition and relationship quality on CWB-I. As noted by Edwards and Lambert (2007), a moderated mediation model does not necessarily imply a direct effect of the interaction on the dependent variable. Therefore, we tested the indirect effects from recognition to CWB-I for good and poor relationship quality separately. As can be seen in Table 5, there was no difference in the direct effects of recognition on CWB-I for both levels of relationship quality. However, the indirect effect of recognition on CWB-I was stronger for poor than for good relationship quality. This is evidenced by a statistically significant difference between the two indirect effects ($p < .01$). Not only the indirect effects, but also the total effects were significantly different for both levels of relationship quality ($p < .05$). This indicates that the interaction effect between recognition and relationship quality indirectly affected CWB-I through negative affect. In sum, as can be seen from Table 5, Hypothesis 2 was supported. For exploratory purposes, we also examined whether the interaction between recognition and relationship quality indirectly affected CWB-I through positive affect. However, no evidence for an indirect effect was found.

Table 4

Coefficient Estimates of the First Stage Moderation Model with Negative Affect and CWB-I (H2) (N = 246)

Mediator Variable Model		(DV = Negative affect)		
Predictor	*b*	*SE*	*t*	*p*
Gender (control)	-.37	.20	-1.82	.07
Age (control)	-.02	.01	-3.07	.00
Employee recognition (ER) (aX)	-.01	.15	-.07	.95
Relationship quality (RQ) (aZ)	-.67	.15	-4.36	.00
ER x RQ (aXZ)	-3.58	.31	-11.76	.00

Dependent Variable Model		(DV = CWB-I[a])		
	b	*SE*	*t*	*p*
Gender (control)	-.31	.10	-2.97	.01
Age (control)	-.01	.00	-2.02	.05
Employee recognition (ER) (bX)	-.08	.10	-.80	.43
Relationship quality (RQ) (bZ)	-.06	.08	-.72	.48
Negative Affect (bM)	.06	.04	1.67	.10
ER x RQ (bXZ)	-.22	.20	-1.12	.26

Note. Entries are unstandardized final-step coefficients. The mediator variable model tests the following equation, $M = a_0 + a_X X + a_Z Z + a_{XZ} XZ + e_M$. The dependent variable model test the following equation, $Y = b_0 + b_X X + b_M M + b_Z Z + b_{XZ} XZ + eY20$. The term $b_{MZ} MZ$ was not included in these models, as the first stage moderation model does not include an interaction between the moderator (relationship quality) and the mediator (negative affect), in predicting the dependent variable (Edwards & Lambert, 2007).

Note. Interpretation of acronyms: CWB-I[a] = Interpersonal Counterproductive Behavior.

Table 5

Analysis of Simple Effects for CWB-I (N = 246)

	(DV = CWB-I[a]) (H2)				
	Stage		Effect		
Moderator Variable	First	Second	Direct	Indirect	Total
Poor RQ[b]	3.57**	.16**	.14	.57**	.71**
Good RQ[b]	-.01**	.06	-.08	-.00	-.08
Difference	-3.58**	.10	-.22	-.57**	-.79*

Note. N = 246. Table entries are the results of the simple effects analysis of a first-stage moderation model with relationship quality as a moderator variable. For rows labeled poor and good relationship quality in the left panel, entries are simple effects for the different paths from employee recognition (independent variable) to negative affect (mediator) computed using coefficient estimates from Table 4. For the right panel, we tested the indirect effects from employee recognition to interpersonal counterproductive work behavior for good and poor relationship quality separately, given that there were no differences in direct effects. Tests of differences for the indirect and total effect were based on bias-corrected confidence intervals derived from bootstrap estimates. $^{*}p < .05$, $^{**}p < .01$

Note. CWB-I[a] = Interpersonal Counterproductive Behavior; RQ[b] = Relationship Quality

HYPOTHESIS 3

Hypothesis 3 predicted an indirect effect from the interaction between recognition and relationship quality on OCB-I through the mediator, positive affect. The same procedures as described for Hypothesis 2 were used. Our hypothesis only concerned the test whether the indirect effect from recognition on OCB-I through positive affect was significantly different for the two levels of the moderator relationship quality. As can be seen in the lower part of Table 6, there was no direct statistically significant effect of the interaction between recognition and relationship quality on OCB-I. Further, as can be seen in Table 7, there was no difference in the direct, indirect or total effects of recognition on OCB-I for both levels of relationship quality. This indicates that the interaction effect between recognition and relationship quality did not affect OCB-I indirectly through positive affect. Thus, Hypothesis 3 was not supported. For exploratory purposes, we also examined whether the interaction indirectly affected OCB-I through negative affect. However, no evidence for an indirect effect was found.

Table 6

Coefficient Estimates of the First Stage Moderation Model with Positive Affect and OCB-I (H3) (N = 246)

Mediator Variable Model		(DV = Positive affect)		
Predictor	*b*	*SE*	*t*	*p*
Gender (control)	-.27	.21	-1.30	.20
Age (control)	-.01	.01	-1.22	.23
Employee recognition (ER) (aX)	1.08	.16	6.90	.00
Relationship quality (RQ) (aZ)	.56	.16	3.55	.00
ER x RQ (aXZ)	3.78	.32	12.02	.00

Dependent Variable Model		(DV = OCB-I[a])		
	b	*SE*	*t*	*p*
Gender (control)	.31	.14	2.20	.03
Age (control)	.01	.01	1.78	.08
Employee recognition (ER) (bX)	-.26	.15	-1.72	.09
Relationship quality (RQ) (bZ)	.13	.11	1.21	.23
Positive Affect (bM)	.06	.05	1.25	.21
ER x RQ (bXZ)	-.19	.30	-.63	.53

Note. Entries are unstandardized final-step coefficients. The mediator variable model tests the following equation, $M = a_0 + a_X X + a_Z Z + a_{XZ} XZ + e_M$. The dependent variable model test the following equation, $Y = b_0 + b_X X + b_M M + b_Z Z + b_{XZ} XZ + eY20$. The term $b_{MZ} MZ$ was not included in these models, as the first stage moderation model does not include an interaction between the moderator (relationship quality) and the mediator (positive affect), in predicting the dependent variable (Edwards & Lambert, 2007).

Note. Interpretation of acronyms: OCB-I [a] = Interpersonal Citizenship Behavior

Table 7

Analysis of Simple Effects for OCB-I (N = 246)

	(DV = OCB-I[a]) (H3)				
	Stage		Effect		
Moderator Variable	First	Second	Direct	Indirect	Total
Poor RQ[b]	1.08**	.06	-.26	.06	-.20
Good RQ[b]	-2.70**	.03	-.07	-.08	-.15
Difference	3.78**	.03	-.19	.14	-.05

Note. N = 246. Table entries are the results of the simple effects analysis of a first-stage moderation model with relationship quality as a moderator variable. For rows labeled poor and good relationship quality in the left panel, entries are simple effects for the different paths from employee recognition (independent variable) to positive affect (mediator) computed using coefficient estimates from Table 6. For the right panel, we tested the indirect effects from employee recognition to interpersonal citizenship behavior for good and poor relationship quality separately. Tests of differences for the indirect and total effect were based on bias-corrected confidence intervals derived from bootstrap estimates. ** $p < .01$
Note. OCB-I[a] = Interpersonal Citizenship Behavior; RQ[b] = Relationship Quality

HYPOTHESIS 4

Hypothesis 4 predicted an indirect effect from the interaction between recognition and relationship quality on AOC through the mediator, positive affect. The same procedures as described for Hypotheses 2 and 3 were used. Our hypothesis only concerned the test whether the indirect effect from recognition on AOC through positive affect was significantly different for the two levels of the moderator relationship quality. As can be seen in the lower part of Table 8, there was no direct statistically significant effect of the interaction between recognition and relationship quality on AOC. We tested the indirect effects from recognition to AOC for good and poor relationship quality separately. As can be seen in Table 9, there was no difference in the direct effects of recognition on AOC for both levels of relationship quality. However, the indirect effect of recognition on AOC was stronger for good than for poor relationship quality. This is evidenced by a statistically significant difference between the two indirect effects ($p < .01$). The results further showed that not only the indirect effects, but also the total effects differed significantly for both

levels of relationship quality ($p < .05$). This indicates that the interaction effect between recognition and relationship quality indirectly affected AOC through positive affect. Thus, Hypothesis 4 was supported. Finally, we also explored whether the interaction indirectly affected AOC through negative affect. The total effect was significantly different for both levels of relationship quality ($p < .05$). This result indicates that, contrary to our expectations, the interaction effect between recognition and relationship quality indirectly affected AOC through negative affect.

Table 8

Coefficient Estimates of the First Stage Moderation Model with Positive Affect and AOC (H4) (N = 246)

Mediator Variable Model		(DV = Positive affect)		
Predictor	*b*	*SE*	*t*	*p*
Gender (control)	-.27	.21	-1.30	.20
Age (control)	-.01	.01	-1.22	.23
Employee recognition (ER) (aX)	1.08	.16	6.90	.00
Relationship quality (RQ) (aZ)	.56	.16	3.55	.00
ER x RQ (aXZ)	3.78	.32	12.02	.00

Dependent Variable Model		(DV = AOC[a])		
	b	*SE*	*t*	*p*
Gender (control)	-.10	.15	-.66	.51
Age (control)	.01	.01	1.36	.18
Employee recognition (ER) (bX)	-.46	.17	-2.78	.01
Relationship quality (RQ) (bZ)	-.02	.12	-.18	.86
Positive Affect (bM)	.20	.05	3.96	.00
ER x RQ (bXZ)	-.37	.33	-1.12	.26

Note. Entries are unstandardized final-step coefficients. The mediator variable model tests the following equation, $M = a_0 + a_X X + a_Z Z + a_{XZ} XZ + e_M$. The dependent variable model test the following equation, $Y = b_0 + b_X X + b_M M + b_Z Z + b_{XZ} XZ + eY20$. The term $b_{MZ} MZ$ was not included in these models, as the first stage moderation model does not include an interaction between the moderator (relationship quality) and the mediator (positive affect), in predicting the dependent variable (Edwards & Lambert, 2007).

Note. Interpretation of acronyms: AOC [a] = Affective Organizational Commitment

Table 9

Analysis of Simple Effects for AOC (N = 246)

	(DV = AOC[a]) (H4)				
	Stage		Effect		
Moderator Variable	First	Second	Direct	Indirect	Total
Poor RQ[b]	1.08**	.20	-.46	.22	-.24
Good RQ[b]	-2.70**	.14*	-.10	-.38*	-.48
Difference	3.78**	.06	-.37	-.60**	.24*

Note. N = 246. Table entries are the results of the simple effects analysis of a first-stage moderation model with relationship quality as a moderator variable. For rows labeled poor and good relationship quality in the left panel, entries are simple effects for the different paths from employee recognition (independent variable) to positive affect (mediator) computed using coefficient estimates from Table 8. For the right panel, we tested the indirect effects from employee recognition to affective organizational commitment for good and poor relationship quality separately. Tests of differences for the indirect and total effect were based on bias-corrected confidence intervals derived from bootstrap estimates. $^{*}p < .05$, $^{**}p < .01$
Note. AOC[a] = Affective Organizational Commitment; RQ[b] = Relationship Quality

DISCUSSION

Taken together, the findings in this study point to potential negative side effects of employee recognition. First, we found that experiencing negative emotions in the context of other's recognition was associated with increased intentions to engage in CWB-I, and that experiencing positive emotions was associated with increased AOC. Contrary to what we predicted, negative emotions were also associated with lower AOC. One possible explanation for this may be that AOC essentially represents one's affective reaction and attachment to the organization, and thus that employees who experience negative emotions following a work-related event will also experience lower levels of AOC (Thoresen et al., 2003). However, future studies should examine how exactly the relationship between negative affect and AOC emerges, and what mechanism is responsible for this unexpected finding. Second, we showed that emotional responses to other's recognition were a function of the relationship between both actors. Other's positive recognition led to the highest amount of negative emotions when the quality of the relationship was low,

whereas the highest amount of positive emotions emerged when relationship quality was high. Third, the analyses provided insight into the underlying mechanisms of the interactive effect of other's recognition and relationship quality on CWB-I and AOC. Our results suggest that CWB-I and AOC are indirectly affected through negative emotions, whereas AOC is also indirectly affected through positive emotions. Finally, we did not find a significant effect of the interaction on intentions to engage in OCB-I through emotions (positive or negative). One possible explanation for this could be that recognition is mainly based on task outcomes and characteristics, and that this will not impact on helping behaviors towards others in the organization. Also, some studies have found that the relationship between affect and CWB is stronger and more consistent than between affect and OCB (e.g., Dalal, 2005). The findings of our study seem to be in line with these results.

THEORETICAL, PRACTICAL AND SOCIAL IMPLICATIONS

The main theoretical implication of these findings is that the common assumption that employee recognition has uniformly positive effects should be challenged. In other words, this is the first study to identify boundary conditions for employee recognition effects. If employees experience negative emotions when others receive recognition, negative effects such as interpersonal harming from co-workers or lower levels of organizational commitment are to be expected. Importantly, this study also shows that recognition may not have the commonly assumed positive effects. More specifically, contrary to our expectations, we found that positive affect following recognition did not lead to increased helping behaviors between co-workers.

From a practical and societal perspective, the most important implication is that recognition programs used as motivational strategies should only be implemented under certain well-defined circumstances and conditions. This caveat fits into a larger societal movement that strongly advocates for a strength-based approach, consistent with the expansion of positive psychology in the last decade. It is clear that this strength-based approach has its merits, but an uncritical adoption of "all comment that is positive in nature, is good" should be avoided. Although recognition might directly motivate the person receiving

recognition, it might actually disturb co-workers' morale. Thus, it is important for leaders, educators and policy-makers to develop ways to limit such potential negative influences and increase the positive effects recognition may have. We propose that managers should help their subordinates cope with emotions accompanying other-oriented recognition, for instance by organizing workshops for subordinates to give insight into own coping skills, and learn new coping strategies.

From a societal perspective, responses such as CWB-I also pose a serious economic threat to organizations (e.g., Bennett & Robinson, 2000) and may have a tremendous negative impact on the effectiveness of individuals, work teams and organizations as a whole (Pearson & Porath, 2005), leading to high costs for organizations and society. Positive responses such as AOC on the other hand are beneficial to organizations and society. Our study sheds a light on the possible antecedents of these outcomes, and offers strategies to reduce these negative (i.c., CWB-I) and enhance these positive (i.c., AOC) outcomes.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

A first limitation applies to the use of scenarios that are often criticized for their lack of realism and potential demand effects. However, recent studies suggest that the use of scenarios in emotion research yields similar results, and that using scenarios in this particular context seems warranted (e.g., De Cremer & Van Knippenberg, 2004). In addition, by using a between-subjects design and because we did not find a significant relationship between emotions and OCB-I, we have some evidence suggesting that demand effects were probably not a major threat. If demand effects for CWB-I and AOC existed, we would have obtained similar relationships for OCB-I. Second, although a strength of the scenario design is the opportunity to draw causal conclusions about the role of the independent variables, the use of self-report measures for the mediator and the dependent variables introduces the threat of common method variance. In addition, we did not ask for reports of actual interpersonal counterproductive or citizenship behaviors, but rather of behavioral *intentions*. However, there is extensive research documenting the strong relationship between intentions and behavior, much of it linked to the Theory of Reasoned Action (Fishbein &

Ajzen, 1975), which posits intentions as the most direct precursor to behavior. Fourth, in this study we focused on CWB-I and OCB-I. Future research should investigate whether the experience of negative (positive) emotions after other-oriented recognition could also lead to organizationally targeted CWB/OCB. Given the effect of emotions on AOC, this might be the case. Studies have shown that AOC is positively related to OCB-O (e.g., Norris-Watts & Levy, 2004) and overall CWB (e.g., Richards & Schat, 2011), supporting this assumption. Fifth, in the scenarios, employees were asked to think of a co-worker who always/never exhibits certain behaviors. It is clear that the actual behavior employees display tends to be more nuanced. However, we opted for simple and clear manipulations to ensure high internal validity. Future research in field studies should be conducted to strengthen the external validity of these findings, as relationships in organizations are typically more complicated than was depicted here. Further, an interesting avenue for future research would be to examine how our findings generalize to other cultures. It becomes increasingly important to understand how cultural diversity in organizations relates to important work-outcomes. The findings of our study may be typical for more individualistic countries, but could be different when conducted in collectivistic countries (Hofstede, 1980). As individuals in collectivistic countries focus more on maintaining harmonious relationships with others and on achieving group goals rather than individual goals, it is likely that other-oriented recognition might lead to different emotions and work-outcomes in such cultures.

CONTRIBUTION AND CONCLUSION

Our study contributes to the literature on employee recognition in three important ways. First, this study extends the effects of recognition on employee behavior by being the first to empirically challenge the dominant perspective that employee recognition has uniformly positive effects on work-related outcomes. We showed that, under specific conditions, employee recognition may not only have positive organizational effects (i.c., higher AOC), but that it may also have negative interpersonal (i.c., CWB-I) and organizational (i.c., lower AOC) effects on other employees' responses. Second, our study adds to the literature by showing that recognition not only has an effect on work

behaviors displayed by recognition recipients, but on those of ‘bystanders’ as well. Third, our study revealed that the quality of the relationship between two (or more) actors is crucial to understand why employees react to other’s recognition in a particular way. The obtained findings thus call for caution when adopting employee recognition as a motivational strategy. We hope that the current findings are a first step in painting a more complete picture of the effects of employee recognition and will help to further develop it as a more effective motivational strategy for organizations.

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CHAPTER 7

GENERAL DISCUSSION

ABSTRACT

The objectives of the studies presented in this doctoral dissertation were threefold. First, on the basis of the feedback model by Ilgen, Fisher and Taylor (1979), we aimed to investigate whether positive and negative feedback affects emotions, attitudes, intentions and behavior in similar ways across feedback contexts (Research Objective 1). Second, we looked at whether emotions acted as a mediating mechanism in the relation between feedback and attitudes, intentions and behavior (Research Objective 2). Third and finally, in this dissertation we investigated three situational moderators that can operate as facilitators in the relationship between feedback and feedback reactions. In this final chapter, the empirical findings of our studies are briefly summarized. Next, the strengths, limitations, and opportunities of this dissertation are delineated. Finally, a discussion of the theoretical and practical implications of this doctoral dissertation is provided.

RESEARCH OVERVIEW

Across five chapters we presented six empirical studies to address the three research objectives described before. Addressing these objectives, the present dissertation contributes to the feedback literature by gaining a more profound knowledge of how unfavorable reactions to feedback develop and may be mitigated. This knowledge may be an onset for practitioners to develop guidelines for feedback interventions that can improve their effectiveness. Below we will take a closer look at how the three research objectives were realized in the present dissertation, and we discuss the major findings resulting from this line of research.

RESEARCH OBJECTIVE 1: FEEDBACK REACTIONS ACROSS CONTEXTS

This first research objective was concerned with the question how individuals feel after receiving feedback, and whether the experience of positive and/or negative emotions is similar in different settings and in different groups of people. As was explained earlier in this dissertation, although this knowledge about basic emotional feedback reactions may not offer many opportunities to actively change those reactions, knowing whether feedback reactions may be generalized across settings is crucial for drawing conclusions about 'general' feedback reactions that go beyond a specific setting or sample. Moreover, as research has shown that emotions following work events (such as performance feedback) often are predictive of work behaviors (e.g., Weiss & Cropanzano, 1996), establishing these emotional reactions is an important first step in examining more distal outcomes of feedback. In trying to formulate an answer to this first objective, in this doctoral dissertation we examined several immediate feedback reactions, namely (un)happiness, feedback utility and acceptance, negative and positive emotions, and satisfaction with feedback. Further, we examined different more distal outcomes of feedback, such as involvement in skill development activities, recommendation intentions and behavior, interpersonal counterproductive and citizenship behavior, and affective organizational commitment. In order to answer the question whether feedback reactions are similar across settings and samples, these reactions were examined across six different contexts: First, two studies were conducted in the

context of the auditions for *Idool*. Further, three studies examined feedback reactions in an organizational context: One study was conducted with employees from a technology firm, another with call center employees and a third with employees working in a health care organization. Finally, feedback reactions were investigated in a management education context. An overview of the different contexts and variables used in this dissertation can be found in Table 1 (see also Chapter 1).

Table 1

Overview of the Chapters and Variables Used in Each Study

Chapter	Feedback stimulus	Moderator	Mediator / Outcome	Study context
2	- Feedback decision	- Interactional justice perceptions	- Predicted and actual happiness	- Idool
3	- Procedural fairness of performance appraisal feedback - Feedback sign	- Leader-member exchange - Supervisory trust	- Feedback utility - Feedback acceptance	- Technology firm (Study 1) - Call center (Study 2)
4	- Feedback score	- Procedural information - Information specificity	- Negative and positive emotions - Involvement in skill development activities	- Management education context
5	- Actual feedback message - Feedback decision	- Actual interpersonal treatment	- Satisfaction with feedback - Recommendation intentions - Recommendation behavior	- Idool
6	- Employee recognition aimed at co-worker	- Relationship quality	- Negative and positive emotions - AOC[a] - CWB-I[b] - OCB-I[c]	- Health care organization

Note: AOC[a] = Affective Organizational Commitment; CWB-I[b] = Interpersonal Counterproductive Behavior; OCB-I[c] = Interpersonal Citizenship Behavior

When looking at the effects of emotions and cognitive reactions to feedback in all studies, a similar pattern of findings could be identified. The first study in this dissertation (Chapter 2) looked at how accurate individuals are when predicting how (un)happy they will feel after a negative or positive feedback event has occurred. As predicted, we found that individuals' predictions of their (un)happiness are not at all accurate. Hence, in this study we were able to replicate the basic forecasting error described by several authors in the affective forecasting literature (e.g., Gilbert, Driver-Linn, & Wilson 2002; Wilson & Gilbert, 2003). More specifically, we found that 'losers' (i.c., candidates who received a negative feedback decision) felt less bad than they had expected a week after the auditions for '*Idool*'. 'Winners' (i.c., candidates who received a positive feedback decision) on the other hand felt less good than they had expected. Hence, in this study, we were able to show that a feedback event (i.c., receiving feedback at the end of an important audition) led to feelings of happiness for 'winners' and to feelings of unhappiness for 'losers', but that these feelings were overestimated prior to the event.

In Chapters 4 and 6, we examined the basic relationship between feedback and general positive and negative emotions. In Chapter 4, we found that students who received a high feedback score reacted more favorably (i.c., reported more positive emotions) and less unfavorably (i.c., reported less negative emotions) than individuals who received a low feedback score. In Chapter 6, employees' positive and negative emotions were examined again. However, the difference between both studies was that the latter looked at immediate reactions following other-oriented feedback. Hence, in this study, we assessed how participants felt after a co-worker received praise or criticism. Here, positive feedback was also positively related to positive affect, whereas negative feedback was negatively (although non-significantly) related to negative affect. These findings were also confirmed in our fourth empirical study (Chapter 5). Here, we found that candidates in '*Idool*' were more satisfied with the feedback when they received a positive feedback message than when they received a negative feedback message.

Finally, Chapter 3 entailed two empirical studies that looked at the procedural justice perceptions of a formal performance appraisal situation in two

different contexts. However, as this study took into account the effects of feedback sign as a control variable, we are also able to look at the main effects of feedback sign on feedback reactions. In the first study we found that, as expected, positive feedback correlated highly and significantly positive with feedback acceptance. However, unexpectedly we also found a positive (yet lower) correlation between feedback acceptance and negative feedback. In Study 2 we found a positive correlation between feedback sign and feedback utility, indicating that individuals who received positive feedback also perceived the feedback as more useful.

Overall, the results from these six empirical studies across all five chapters confirm the basic assumption that in general, positive feedback will lead to positive reactions (supported in all six studies), and negative feedback will lead to negative reactions (supported in four out of six studies), a finding that is in line with results from other studies (e.g., Belschak & den Hartog, 2009; Kluger, Lewinsohn, & Aiello, 1994; Podsakoff & Farh, 1989). Although we do acknowledge that this finding is not 'new' as such, we believe it is crucial to establish that these basic feedback reactions are robust in different contexts, even in those settings that were previously unexamined and in situations where the feedback message was aimed at others instead of at the self.

RESEARCH OBJECTIVE 2: EMOTIONS AS MEDIATING MECHANISMS

Throughout this dissertation, we have argued that feedback may not only elicit direct but also more distal reactions. More specifically, we argued that emotions may act as a mediating mechanism through which feedback influences other outcomes (i.c., attitudes, intentions and behavior). In this doctoral dissertation, we tried to examine the distal and/or long-term effects of feedback by looking at involvement in skill development activities (Chapter 4), recommendation intentions and recommendation behavior (Chapter 5), and affective organizational commitment (AOC), interpersonal counterproductive behavior (CWB-I) and interpersonal citizenship behavior (OCB-I) (Chapter 6). Examining the process through which these distal reactions are formed is important as it may enhance our knowledge about how important work attitudes, intentions and behaviors are formed.

In Chapters 4 and 5, we looked at the indirect and long-term effects of feedback on behavior. More specifically, in Chapter 4 we examined the effects of feedback score on involvement in skill development activities through the experience of emotions in a student sample. As described in the previous section, we found that feedback score related to favorable and unfavorable reactions in the first place. However, we also looked at the long-term effects of feedback by examining the self-reported involvement in skill development activities 15 months later. In this study, as expected we found that favorable reactions were positively related to involvement in skill development activities over a year later. However, although the relation between unfavorable reactions and this outcome variable was negative, it did not reach significance.

The next chapter (Chapter 5), on the one hand looked at the short-term indirect effects of feedback on intentions through emotions. On the other hand, this study looked at the long-term indirect effects of feedback on behavior six months later through emotions. More specifically, this study first showed that the feedback message led to recommendation intentions through the experience of satisfaction with feedback. Hence, candidates who were satisfied with the feedback they received reported higher intentions to recommend participating in such a performance competition to their peers. Second and even more importantly, we found that satisfaction also led to self-reported recommendation behaviors displayed within six months after the auditions. Hence, in this study we found a short-term and a long-term indirect effect of feedback on intentions and behavior through the experience of emotions.

Finally, in Chapter 6 we conducted a scenario-study to assess the indirect effects of other-oriented feedback on attitudes and behavioral intentions. More specifically, first we looked at how other-oriented feedback led to CWB-I through the experience of negative affect. Second, we investigated how positive affect led to AOC and OCB-I. The results of this study first showed a confirmation of the hypothesis that feedback would lead to CWB-I through the experience of negative affect. Exploratory analyses showed that no such effect could be found with positive affect as a mediator. Next, unexpectedly we did not find an indirect effect of feedback on OCB-I through positive affect. Exploratory analyses revealed no effect of negative affect on OCB-I either. Third, our final

hypothesis, predicting that feedback would lead to higher AOC through positive affect, was confirmed in this study. However, unexpectedly we found that participants reported lower levels of AOC after experiencing negative affect.

In sum, these findings point out that reactions to feedback are often more distal, whether in the short-term or in the long-term. Overall we found support for most of our hypotheses stating that certain attitudes (i.c., AOC), intentions (i.c., CWB-I and recommendation intentions) and behaviors (i.c., involvement in skill development activities and recommendation behavior) were formed through the experience of positive and/or negative affect and satisfaction. No confirmation was found for the expected relations between negative emotions and involvement in skill development activities, and between positive emotions and interpersonal citizenship behavior. As most feedback research to date has looked at the consequences of feedback on tasks that the feedback referred to (e.g., Illies & Judge, 2005) or tasks similar to the feedback-related task (e.g., Saavedra & Earley, 1991), this dissertation meaningfully adds to the literature by looking at feedback reactions that are broader than the ones mentioned here. Further, the results from the studies in this dissertation provide interesting insights into the mechanisms of the emotional effects of feedback. Our results, combined with the evidence from others studies showing the mediating effects of emotions in the relation between feedback and work attitudes and behavior (Belschak & den Hartog, 2009), and the relation between feedback and goal regulation (Illies & Judge, 2005) illustrate the importance and urgency of considering emotional effects when discussing and studying feedback interventions and their consequences.

RESEARCH OBJECTIVE 3: FEEDBACK AND SITUATIONAL MODERATORS

Research Objective 1 and Research Objective 2 concerned the main effects of feedback on feedback reactions, whether proximal or distal. In the next section, we will provide an overview of the interactive effects between feedback and several situational moderators considered in this doctoral dissertation. Examining these situational moderators and establishing their effects on feedback reactions is crucial in order to find ways to enhance positive reactions and diminish negative reactions. In trying to find out what situational

moderators have an effect on feedback reactions, in this dissertation we looked at those moderators we believe are manageable by organizations, namely interactional justice (Chapters 2, 4 and 5), procedural justice (Chapter 4) and relationship quality (Chapters 3 and 6). Hence, as can be seen from this overview, Research Objective 3 was examined in all empirical chapters of this doctoral dissertation.

Throughout this dissertation, we have argued that interactional justice might moderate the relationship between feedback and emotional reactions. This assumption was indeed confirmed in two out of three studies that looked at this moderating effect. In order to investigate the diverse aspects of interactional justice, this variable was operationalized in three different ways. In the first study of this dissertation (Chapter 2), we examined the interactive effect of interactional justice perceptions on the forecasting error. As predicted, we found that interactional justice perceptions moderated this error for both ‘losers’ and ‘winners’. More specifically, we found that interactional justice increased the forecasting error for ‘losers’ but decreased it for ‘winners’. In Chapter 5 we looked at another operationalization of interactional justice, namely actual interpersonal treatment as coded by two independent raters. In this study, we found that feedback valence indeed interacted with interpersonal treatment to affect satisfaction with feedback. Importantly, in this study we controlled for the feedback decision (‘pass’ or ‘fail’) in order to eliminate all possible confounds when looking at the effects of feedback valence. These results show that the actual feedback valence as coded by independent raters does matter to applicants, but only if the treatment they receive is respectful. Finally, in Chapter 4 we looked at information specificity as an aspect of interactional justice (namely, informational justice). In this study, quantitative analyses showed unexpectedly that the interaction between information specificity and feedback score was not significant for favorable feedback reactions. Although we did find a significant effect of this interaction on unfavorable feedback reactions, this effect was not in the expected direction. More specifically, the results from quantitative analyses showed that respondents reacted unfavorably to negative feedback, but this positive relationship was less pronounced when they received a low amount of information specificity in their feedback reports.

Qualitative analyses showed that a possible reason for this could have been that participants were not inclined to accept the negative feedback score because of the lack of information they received, and hence did not feel the need to react unfavorably. It is possible that that a low amount of information enabled respondents to attribute their low feedback score to factors other than their performance such as low-quality ratings or extraneous conditions. Thus, although information specificity did moderate the relation between feedback and unfavorable reactions, the hypotheses concerning interactional justice in this study could not be confirmed.

In Chapter 4 we did not only look at interactional justice, but also at procedural justice as a moderator in the relation between feedback and reactions. Procedural justice was operationalized as procedural information in this study, referring to the amount of information the participants received about the procedures. Here, quantitative analyses showed that there was a positive interaction between feedback score and procedural information on favorable feedback reactions. Furthermore, the pattern of the interaction showed that, as predicted, the relation between feedback score and favorable feedback reactions was more pronounced for individuals who received a high amount of procedural information. In this study, we also looked at qualitative comments to analyze why participants reacted the way they did. With regard to the positive effects of high procedural information on favorable feedback reactions, participants' comments indicated two main reasons that may lie at the base of these findings. A first reason reflected in the comments was that the information about the rating process gave participants the confidence that raters did a good job at observing them during the different workshops, hence leading to more favorable reactions. A second possible reason may have been that the respondents knew who observed them and deemed the raters to be credible. Consequently, they attached greater value to the comments made, and hence believed they could use the feedback for further improvement. Finally, we also looked at the effect of the interaction in unfavorable feedback reactions. However, no significant effect was found here.

A final situational moderator that was examined in this doctoral dissertation, was relationship quality. In Chapter 3, two studies were conducted

to investigate whether relationship quality moderated the relation between procedural justice perceptions of the performance appraisal, and feedback acceptance (Study 1) and feedback utility (Study 2). In this chapter, relationship quality was operationalized in two different ways, namely as leader-member exchange (Study 1) and as supervisory trust (Study 2). In both studies, we found support for the moderating effect of relationship quality on feedback utility and acceptance. More specifically, results of the moderator analyses showed that the positive relationship between performance appraisal justice perceptions and feedback reactions was more pronounced for subordinates in a low-quality relationship with their supervisor. Hence, this shows that, in order for feedback to be considered as useful and acceptable, it is necessary to have a perception of high procedural justice, especially when the quality of the relationship with the supervisor is low. Although this was not the focus of our dissertation, in this chapter we also looked at the mediating effects of relationship quality in the relation between performance appraisal justice perceptions and feedback reactions. In both studies, the mediating model was supported as well. In the final chapter of this dissertation (Chapter 6), we looked at the effects of relationship quality on the relation between other-oriented feedback and emotions. Here, we wanted to examine how employees react when they hear another employee receive praise or criticism, and to what extent these emotional reactions depend on the quality of the relationship with this other person. As expected, we found that the interaction between recognition and relationship quality had a significant effect on positive affect. More specifically, we found that positive recognition led to positive affect when relationship quality was high, and to negative affect when this was low. Conversely, results showed that negative recognition led to positive affect when relationship quality was low, and to negative affect when this was high. Hence, in this dissertation all hypotheses concerning the moderating effect of relationship quality could be confirmed.

In sum, the findings presented in this dissertation overall show support for the moderating influence of interactional justice in the relation between feedback and feedback reactions. The finding that interactional justice may lead to such reactions is in line with other research that has consistently demonstrated

the effect of interactional justice on individuals' attitudes and behaviors (e.g., Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Greenberg, 1993). As was proposed by Greenberg (2009), one of the reasons for the importance of interactional justice in the development of reactions to decision outcomes and messages is that treatment sensitivity can help individuals come to terms with a negative decision or event (such as a negative feedback message). This is in line with our finding that *actual* respectful treatment made participants less dissatisfied with a negative outcome decision. The fact that we examined both perceptions of interactional justice and actual just treatment substantially adds to our knowledge about the effects of interactional fairness by showing that actual treatment matters next to perceptions of justice. Further, the moderating role of procedural justice was investigated in one chapter, showing that this variable moderated the effect of feedback on favorable feedback reactions. This result is similar to what was found in other studies looking at the associations between procedural justice and emotional and cognitive outcomes (e.g., outward emotions, Barclay, Skarlicki, & Pugh, 2005; feedback accuracy and utility, Tuytens & Devos, 2012; motivation to improve performance, Jawahar, 2007). According to the self-interest model of procedural justice (Leventhal, 1980; Thibaut and Walker, 1975), it is valued because it signifies that outcomes in the long run will be fair because of fair procedures. In the relational view of procedural justice, procedural justice is one of the key determinants of individuals' perceptions of authority legitimacy and their willingness to comply with the established procedures (Lind, 1995; Tyler, 1999). The results obtained in this dissertation align with these viewpoints, as our study in Chapter 4 showed indeed that procedural justice was associated with favorable reactions. Finally, results from three studies provide full support for the moderating effect of relationship quality on the relation between feedback and feedback reactions. This aspect of the social context has been of interest within the larger industrial and organizational psychology, human resources and organizational behavior disciplines (Graen & Scandura, 1987; Liden, Sparrowe & Wayne, 1997) and more specifically within the performance appraisal literature (Duarte, Goodson & Klich, 1993; Kacmar,Witt, Zivnuska & Gully, 2003; Varma & Stroh, 2001; Vecchio, 1998). Earlier research has also supported the relationship between

relationship quality and both the direct and indirect effects on organizational and individual outcomes. For instance, research has found relationships between mutual trust and outcomes such as employee attitudes, cooperation, communication, and organizational citizenship behaviors (Dirks & Ferrin, 2001). Importantly, in this dissertation we found that a poor relationship quality between supervisor and subordinate could also lead to negative outcomes (i.c., lower acceptance and usefulness of feedback). Similarly, it was shown that the relationship between two co-workers was associated with positive and negative emotions, dependent on the sign of feedback. This shows that trust issues can limit the effectiveness of performance appraisals, and issue that until now had not received much attention.

IMPLICATIONS FOR THEORY AND PRACTICE

THEORETICAL IMPLICATIONS

Theoretically, this dissertation first contributes to a better understanding of feedback process models by showing the potential mediating mechanisms and external influences on the feedback – feedback reactions relationship. As such, our results may be a basis for refining current theoretical models. In this dissertation, it was indisputably shown that two types of justice, namely procedural and interactional justice *moderated* the effect of feedback on proximal and distal feedback outcomes. However, some feedback process models (e.g., Elicker, Levy, & Hall, 2003; Roberson & Stewart, 2006) have focused on fairness as a *mediator* in this relationship. Based on the findings in this dissertation, we would argue for a refinement of these justice-based feedback models by looking at these justice types as potential moderating factors. Moreover, as these models tended to overlook relationship quality as an influencing factor, it seems desirable to include this as a moderator as well. Hence, our findings can help other researchers to explore interaction effects between feedback, justice effects and relationship quality and to pay more attention to moderated, next to mediated, relationships when developing new models of feedback reactions.

Second, while other authors (e.g., Lam, Yik, & Schaubroeck, 2002) have proposed moderating effects of (negative) trait affect on the relationship

between feedback and work attitudes (such as commitment and turnover intentions), in this dissertation we argued and showed that positive and negative emotions (state affect) mediate this relationship. Hence, this dissertation contributes to the literature of feedback and emotions by exploring the impact of performance feedback on emotions as well as the (mediating) effect of feedback and subsequent emotional reactions on attitudes, intentions and behaviors, an issue that until now received little attention (for an exception, see Belschak & den Hartog, 2009). Moreover, studies that investigated the link between feedback and affect often used emotion experiments among students, and as a result research in organizational settings remains scarce (Belschak & den Hartog, 2009). By showing that the mediating effect of emotions was not only found in a student sample, but also in a sample of television show candidates and employees of three distinct organizations, we provide evidence for the generalizability of these findings across samples and settings.

Third and finally, this dissertation contributes to a better understanding of how feedback interventions may be developed and applied. In their theoretical review, Levy and Williams (2004) concluded by identifying two goals that the field of performance appraisal research should continue to strive for: First, research should try to gain a better understanding of the performance appraisal process and second, this enhanced understanding should be applied to organizations so as to improve performance appraisals in use. We believe this dissertation has contributed to both of these goals. First, concerning the process, we showed that fairness with regard to the procedures and with regard to the treatment participants' receive, next to the quality of the mutual relationship between feedback provider and receiver may improve individuals' reactions to the feedback they received. Thus, if organizations ensure that the procedures and treatment are fair and the trust between rater and ratee is high, they can significantly enhance employees' reactions and consequently improve the effectiveness of the performance appraisal process. With regard to the application of these interventions, we added to the knowledge by not only measuring participants' post-hoc perceptions of the feedback intervention but also applying feedback interventions in the field. In one study, we showed that the way in which different types of information were presented to feedback

receivers actually caused changes in their feedback reactions. Although we only applied such an intervention in one of our studies, these findings can be a valuable onset for developing and applying similar feedback interventions in order to establish the effects of these interventions on performance appraisal effectiveness. This brings us to the next section.

PRACTICAL IMPLICATIONS

From a practical perspective, developing solid feedback interventions has been a challenge for organizations and managers for quite some time now. The empirical studies in this dissertation yielded insights, which have important practical implications concerning the situational moderators in the relation between feedback and feedback reactions. These practical recommendations, which are aimed at improving feedback processes in organizations, are summarized below. Note that these recommendations are not solely based on what was found in the studies of this dissertation, but also on insights from the broader feedback literature.

A first set of recommendations concerns the role of feedback sign in the feedback process. In all studies, we found that in general people tend to embrace positive feedback but reject negative feedback. This finding is especially noteworthy in the light of the results of Chapters 4, 5 and 6 that show that emotions immediately after feedback predict certain attitudes, intentions and behaviors. The findings in these and our other studies suggest some important practical recommendations.

1. Consider how delivery of feedback impacts the perceived emotions, and the perceived utility and accuracy of feedback. Train managers in instrumental leader behaviors that might improve the perceived utility and accuracy, and the desire to respond. Spend time and resources to improve the accuracy of the appraisal system. Inform employees about the validity and accuracy of the appraisal system.

2. Help employees interpret and react to negative feedback. Personal coaches, feedback workshops and follow-up sessions may be helpful in focusing on both positive and negative feedback, motivating employees in dealing with inconsistencies, and formulating plans for improvement.

3. Managers may experience difficulties in communicating negative feedback. We advise to appoint a feedback facilitator who can provide and discuss the feedback, and subsequently help the recipients to interpret the feedback message in an appropriate manner. As was discussed in Chapter 4, Expert Feedback Systems may offer a viable alternative for providing feedback in a more systematic and objective manner.

4. Be careful when providing feedback to employees in the presence of co-workers. Feedback may motivate the person receiving the feedback, but might have a negative effect on co-workers' morale. Managers should help their subordinates cope with emotions accompanying other-oriented recognition, for instance by organizing workshops for subordinates to give insight into own coping skills, and learn new coping strategies.

A second series of practical implications can be derived from the empirical studies in Chapters 3 and 4 that look at procedural justice as an aspect of the feedback process. These results are particularly interesting from a practical point of view as they stipulate strategies that organization might adopt in order to create more fair procedures, and to communicate these procedures to employees.

5. Ensure that employees are aware of the procedures used to reach the feedback decision/ feedback score/ feedback message and be honest about the process that led to the feedback.

6. Give employees the opportunity to express their feelings and giving them voice in order to help create a procedural justice climate.

7. Train supervisors in the correct use of the procedures and criteria relevant for feedback giving (e.g., consistently applying transparent appraisals).

Third, in the empirical studies conducted in Chapters 2, 4 and 5, we highlighted the important role of interactional justice in the feedback process. The findings that informational justice and interpersonal justice (two aspects of interactional justice) have an impact on feedback reactions, is crucial for organizations. The way people are treated by supervisors, colleagues, or other parties, may be relatively easily alterable following practical recommendations based on empirical research.

8. As an organization, pay more attention to the interpersonal treatment employees receive. Organizations can train individuals (i.c., supervisors, selectors, co-workers) in providing feedback in a respectful manner, or standardize rules as to how feedback should be communicated.

9. Be cautious with the immediate provision of detailed negative performance feedback. Make sure that people have the time to process a negative feedback message before overwhelming them with information about why they receive such a negative appraisal.

10. Do not withhold valuable negative feedback to avoid negative reactions. Instead, provide feedback recipients with overall outcome feedback and help them to find out the explanations for potential negative outcomes on their own by means of guided reflection and after event-reviews.

Fourth, in three studies across two chapters in this doctoral dissertation we examined the role of relationship quality as a moderating factor in the relation between feedback and feedback reactions. More specifically, in Chapter 3, we conducted two studies to investigate the relationship quality between a supervisor and his/her employees. In Chapter 6, a scenario-study was conducted to examine the relationship quality between two co-workers. The results of these studies provides us with important practical recommendations for organizations and its members.

11. Implement feedback programs as a motivational strategy only when the quality of the relationship between co-workers is moderate to good. Otherwise, employees will react negatively when a disliked co-worker receives positive feedback. Interventions such as team-building activities may help in improving mutual relationships.

12. Plan interventions to improve relationship quality between supervisors and subordinates. Supervisors can be trained in building a better relationship with their employees, and companies can stimulate several social activities that increase mutual trust.

A final practical implication concerns individual difference variables which should be accounted for in organizational settings. Individual differences may make people more or less open to feedback, making them important starting points for formulating practical recommendations. Throughout this dissertation, we looked at some personality factors that were included as control variables. Here, we will formulate a practical recommendation for organizations based on these findings.

13. We advise to make employees more aware of their natural dispositions towards feedback and encourage them to engage in introspection when dealing with feedback messages. In addition, supervisors should train themselves in paying attention to these

individual differences and tailor feedback messages to employees individually.

To conclude, it should be noted that the practical recommendations that we summarized here are limited to organizational practices. However, the obtained findings might also have important implications that go beyond organizational applications. Feedback interventions are among the most widely used mechanisms to enhance learning and development across a broad range of settings. For instance, feedback processes have been found to be of key importance in learning sport skills to athletes, stimulating healthy behavior in health care programs, and for the treatment of depression in clinical settings. We envision that the insights from this dissertation may have practical relevance for all settings where giving and receiving feedback are an essential part of the development process. Here we provide practical recommendations for each of these different settings based on our own research that was presented in this dissertation.

14. In the context of team sports, it is crucial for performance that feedback is not only provided by the coach, but also by other members of the team (e.g., Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008). However, as was shown in this dissertation, in order for feedback to be accepted, it is crucial is that the quality of the relationship between the provider and receiver of feedback is good. Moreover, a good relationship is also important when ‘bystanders’ are aware of the feedback that is given to others. If the quality of the relationship is poor, this may lead to negative emotions and subsequent undesired interpersonal behaviors. Hence, sports teams may benefit from teambuilding activities that aim to improve feelings of trust between team members and between the coach and his/her team members, and consequently improve the overall quality of the relationships within the team.

15. Feedback has long been a part of psychosocial and health behavior interventions and with the advent of computerized assessment and treatment tools, is gaining greater importance (e.g., Schmidt et al., 2006). In this context, feedback has been used to improve the effectiveness of interventions designed to change behaviors. The term feedback covers a broad range of interventions from simple 'one off' interventions such as generic advice, to highly complex, repeated, personalized forms of feedback on risk and severity (Di Clemente, Marinilli, Singh, & Bellino, 2001). Based on our studies, we would encourage feedback providers in this setting to be careful not to withhold from giving negative feedback, as this is crucial when trying to change an individual's behavior for the better. However, in these cases patients (e.g., individuals battling an eating-disorder or suffering from drug or alcohol addiction) often are vulnerable and may not be able to process a negative message on their own. Therefore, we believe feedback providers should be extra cautious when dealing with these target groups. Here, it would be especially helpful to provide an overall negative feedback message in the first place without conveying detailed information as this may instigate resistance in the feedback receiver. Instead, it may be more appropriate to help the patients discover the reasons and causes for this negative message together with an expert, before learning how to change these unwanted and sometimes even hazardous behaviors.

16. Providing feedback to individuals suffering from depression is not an easy task. Depressed individuals often have a negative cognitive style, leading them to attribute stressful life events to stable, global causes and to infer negative characteristics about the self and negative future consequences due to the occurrence of the event (e.g., Dobkin et al., 2007). Moreover, these individuals will also be more inclined to seek negative feedback without considering possible positive messages (e.g., Pettit & Joiner, 2006). These

negative tendencies make it difficult for family members and friends to get through to the patient with positive feedback messages (e.g., Dobkin et al., 2007). Based on our own studies, first we would argue to develop a training for the patient in order to make him/her aware of the natural tendency towards negative feedback seeking and negative causal attributions. Similar to what we advised earlier with regard to employees, patients suffering from depression may particularly benefit from engaging in introspection in order to gain awareness of their tendency to seek negative feedback and attribute negative events to internal and stable causes. As such, these patients can learn how to recognize these tendencies and consequently alter their thought processes towards more positive feedback seeking tendencies and attributional styles. Of course, as we did not conduct studies with depressive patients, these practical guidelines are only tentative. Second, family members and friends could also engage in training in which they can be taught how to respond to the patient's dysfunctional thoughts in a targeted manner. This is in line with 'adaptive inferential feedback partner training', a recent cognitive technique that is offered to family members of depressive patients in order to make them aware of the patient's natural inclination to focus on negative aspects of feedback and the self (e.g., Dobkin et al., 2007). Here, family and friends can be trained in paying attention to these individual differences and tailor their feedback messages to these dispositions.

STRENGTHS, LIMITATIONS, AND DIRECTIONS FOR FUTURE RESEARCH

LIMITATIONS

Of course, this doctoral dissertation has some limitations that should be acknowledged. First, in all studies, the outcome variables were based on self-report assessments of emotions, attitudes, intentions and behavior. Further, in two studies (Chapters 2 and 3), the moderators were also assessed using self-

report measures. Common method variance may therefore have led us to overestimate the size of the relationships in these studies (e.g., Semmer, Grebner, & Elfering, 2004). Future research would benefit from including peer- and supervisor-ratings (of for instance behavior) to examine whether the effects found in this dissertation could be replicated.

A second limitation concerns peoples' causal attributions for feedback. Some authors have argued that the attributions made by individuals may be responsible for their reactions to feedback (e.g., Ilgen & Davis, 2000). However, quantitative data to test this assumption were not available in the studies presented here. In Chapter 4, qualitative analyses on participants' comments were conducted in order to examine the relationship between their causal attributions and feedback reactions. However, no such relationship could be established. Future research should collect data on these causal attributions in order to examine whether these assumptions are true, and hence whether an individual's reactions are indeed (partially) caused by his/her attributional style.

A third limitation concerns the distinction between procedural justice and interactional justice. To this day, there remains conceptual confusion regarding the different types of justice. Some authors argue for a three-dimensional model of justice (i.c., procedural, distributive and interactional justice; e.g., Cohen-Charash & Spector, 2001), whereas others deem a four-dimensional model to be more appropriate (procedural, distributive, interpersonal and informational justice; Colquitt et al., 2001). Still others argue that more attention should be devoted to the examination of "overall" justice (e.g., Ambrose & Schminke, 2009). However, despite this conceptual disagreement, there is a general consensus about the importance of justice perceptions for individual behavior (Jawahar 2007). In this dissertation, different operationalizations of interactional justice were used, among which 'information specificity' (Chapter 4). In the introduction of this dissertation, we posited that information specificity can be seen as an operationalization of the 'informational' aspect of interactional justice. However, given the conceptual confusion regarding these types of justice, future research should investigate the dimensionality of the different types, and try to bring more clarity with regard to the conceptual definitions of overall justice and its subtypes.

A fourth limitation regards the lack of attention to performance-oriented outcomes measured in our studies, especially in the organization samples. Previous research regarding the effects of managerial feedback interventions on subordinates' task performance have shown that feedback helps to increase employees' learning and knowledge of results, which is crucial to be able to take corrective action and improve task performance (Ilgen & Davis, 2000). However, in this dissertation we focused on looking at emotions, intentions, attitudes and behaviors that were not performance-related. It would have been interesting to include performance data collected in organizations to see whether the same mediating mechanisms and moderating influences could be found on outcomes such as motivation and learning.

A fifth and final drawback concerns the different contexts and samples the studies were conducted in. Although the diversity of settings can be seen as an important strength of this dissertation, the fact that we did not compare them systematically makes a thorough comparison of the studies' results difficult. For instance, results in our studies may have been influenced by characteristics of the studies' samples (e.g., age, tenure, personality variables) or aspects of the feedback environment (e.g., quality of the feedback provided, availability and credibility of the feedback source) that were not assessed. Knowledge about these different contextual variables would have been useful in order to draw more viable conclusions regarding the outcomes of our studies across contexts.

STRENGTHS

Although it is important to acknowledge these limitations, this dissertation has several methodological strengths that may compensate for many of the drawbacks mentioned above. In this dissertation, six empirical studies were carried out in response to three overarching research objectives. First, all studies addressed several research objectives and all research objectives were addressed in several studies so that valid conclusions could be drawn. More specifically, because the three objectives were studied in organizational, reality television and educational contexts, we are able to draw conclusions that go beyond each particular setting. This is important as it indicates the robustness of our findings, and because it enables us to conclude that our study findings are

generalizable to other settings and other samples. Moreover, the present dissertation consisted of quasi-experimental studies as well as field studies, and cross-sectional as well as long-term data was collected. The use of diverse methodological designs is an important strength of this dissertation as most feedback studies have relied on cross-sectional research designs to look at the relationship between feedback and feedback reactions (e.g., Gupta & Kumar, 2013; Kuvaas, 2006, 2007, 2011; Sparr & Sonnentag, 2008; Zhong, Cao, Huo, Chen, & Lam, 2012). Using these different research designs and collecting data over longer time periods allowed us to identify causal effects in addition to exploring relationships between variables. Finally, studies in this dissertation did not only rely on self-report assessments of the independent and moderator variables. In several studies, objective indicators of feedback valence were used, namely actual feedback score (Chapter 4), feedback decision (Chapter 2) and feedback message content (Chapter 5). With regard to the moderator variables, we used actual interpersonal treatment (Chapter 5) and manipulations of justice (Chapter 4) and relationship quality (Chapter 6) as measures of moderating factors. Going beyond subjective and self-report measures of feedback and justice variables enabled us to examine whether the actual objective treatment and feedback matters, rather than looking at participants' perceptions of justice and feedback, which is mostly done in feedback research (e.g., Erdogan, 2002; Jawahar, 2007; Leung, Su, & Morris, 2001). Overall, the diversity of the applied methods enhances the robustness and the generalizability of the results of this dissertation's studies.

DIRECTIONS FOR FUTURE RESEARCH

Given the diversity of studies that can be conducted based on the studies in this dissertation, we chose to identify two avenues for future research we believe are most urgent to be addressed. We advocate that the issues proposed here should receive more attention in the upcoming years in order to significantly improve our understanding of feedback research.

First, in this doctoral dissertation we focused on the provision of formal feedback by supervisors (e.g., performance appraisal) or expert judges (i.c., auditions for a competition). However, in organizations many instances of

feedback, whether initiated by the supervisor or co-workers, are informal. One definition of informal feedback states that it is feedback provided independently of formal mechanisms such as performance appraisals or 360-degree feedback survey processes, and that it is communicated in everyday interactions (London, 2003; London & Smither, 2002). However, until now the conceptual difference between formal and informal feedback has not yet been clarified, making the search for antecedents and consequences of informal feedback difficult. A first avenue for future research would hence be to delineate the concept of informal feedback and describe how it differs from more formal feedback systems (see also Pitkanen & Lukka, 2011). In this line, it would be interesting to examine whether individuals' reactions to informal feedback are similar to reactions following formal feedback. It is likely, for instance, that informal feedback reactions may depend even more than formal feedback reactions on situational moderators such as relationship quality and interpersonal treatment. We believe for instance that in general, informal feedback will be more accepted than formal feedback, but only when the quality of the relationship between feedback provider and receiver is good. Next, attention should be directed at investigating the organizational conditions and antecedents that facilitate the provision of informal feedback giving. To our knowledge, only one such study has been conducted at this moment. In this study, the authors found that support in the work environment positively influenced the quality of the self-initiated feedback from colleagues and (in particular) from the supervisor (van der Rijt, van de Wiel, Van den Bossche, Segers, & Gijselaers, 2012). These authors proposed that fostering supportive and psychological safe work environments could encourage employees to look for and give constructive informal feedback, which will stimulate learning and performance in organizations. However, more research needs to be done in order to replicate these findings and broaden the knowledge on other situational and individual antecedents of informal feedback giving and seeking, and on the consequences this type of feedback may have.

A second avenue for future research concerns the potential counterproductive reactions to performance feedback. Research has shown that more and more organizations are confronted with aggressive and counterproductive behaviors by their own employees (O'Leary-Kelly &

Newman, 2003). This evolution has led to a growing interest in counterproductive work behavior (e.g., O'Leary-Kelly & Newman, 2003). Interestingly however, the research on counterproductive work behavior has not been well integrated with research on the provision of performance feedback information. In fact, there is little research that explores counterproductive or aggressive behavior as a reaction to negative feedback. This is surprising because many of the publicized incidents of workplace violence that captured the attention of researchers, practitioners and the general public involved situations where employees reacted aggressively to negative feedback from work-related sources (e.g., Fox, 1995; Toufexis, 1994). Conversely, feedback research has mainly focused on the effects of performance feedback on task behavior without devoting much attention to the potential dysfunctional effects of feedback (for an exception, see O'Leary-Kelly & Newman, 2003). Hence, a fruitful avenue for future research would be to examine the feedback – counterproductive work behavior link in different settings, with different samples and by applying different research designs. A first objective in this regard would be to establish whether there is indeed a relation between feedback and actual counterproductive work behavior. Second, it would be necessary to investigate the modalities and mechanisms of this relation based on organizational and social theories. It would be for instance interesting to look at the effects of depth of elaboration of feedback (e.g., Wofford & Goodwin, 1990) and at individual difference variables in the feedback receiver and provider (e.g., self-esteem and narcissism, see also Barry, Chaplin, & Grafeman, 2006). To look into these effects, controlled experiments as well as field studies should be conducted in order to be able to look at causal effects as well as 'actual' counterproductive work behaviors. Finally, it would be useful to look at aspects of the feedback environment and social support from the supervisor in order to discover potential moderating factors in the occurrence of counterproductive work behavior.

CONCLUSION

In this dissertation, six studies were presented across five chapters in which we investigated the proximal and distal effects of feedback on emotions, intentions, attitudes and behaviors. Further, we also examined the mediating role of emotions and the moderating influence of situational variables in the feedback – feedback reactions relationship. We learned that conducting research in different contexts and different samples was sometimes challenging to carry out, but that our efforts eventually paid off in terms of the practical and theoretical implications. Specifically, the findings expand our knowledge on the generalizability of feedback reactions across contexts, on the fundamental processes of how feedback reactions are formed, and on situational moderators that are of influence in this relationship. In terms of implications for practice, findings regarding the effects of interpersonal treatment, procedural justice and relationship quality offer valuable starting points for the development of feedback interventions aimed at improving individuals' feedback reactions.

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NEDERLANDSTALIGE SAMENVATTING

WANNEER FEEDBACK FOUT AFLOOPT: EEN ONDERZOEK NAAR FACTOREN DIE ONGUNSTIGE REACTIES OP NEGATIEVE FEEDBACK VERMINDEREN

INTRODUCTIE

Hoewel er reeds meer dan 30 jaar onderzoek gevoerd wordt naar het managen van prestaties (‘performance management’) binnen organisaties, blijft de kloof tussen wetenschap en praktijk heel groot. Onderzoekers roepen daarom op om wetenschappelijk na te gaan wat organisaties kunnen doen om prestatiebeoordeling om te vormen tot een effectievere feedbackinterventie (e.g., Levy & Williams, 2004). Ondanks het feit dat zowat elk groot bedrijf tegenwoordig gebruik maakt van een of andere vorm van prestatiebeoordeling, wordt prestatiebeoordeling het ‘zwarte schaap’ genoemd van human resource management (Bernardin, Magan, Kane, & Villanova, 1998). Uit onderzoek blijkt immers dat maar liefst 90% van alle prestatiebeoordelingsmethoden onsuccesvol zijn. Ook in bedrijven zelf blijkt er een grote ontevredenheid te zijn over prestatiebeoordeling, zo ver zelfs dat sommigen weigeren het woord ‘prestatiebeoordeling’ (‘performance appraisal’) te gebruiken, en dit vervangen hebben door ‘performance management’ (Banks & May, 1999).

Met dit doctoraat heb ik geprobeerd gevolg te geven aan de oproep tot meer onderzoek over de factoren die de effectiviteit van prestatiebeoordelingen kunnen bevorderen. Om dit te kunnen doen is het belangrijk om te begrijpen hoe mensen reageren op prestatiebeoordelingen, en om die factoren te identificeren die deze reacties kunnen beïnvloeden. In deze zin is het voornamelijk belangrijk om te kijken naar die factoren waarop organisaties actief een invloed kunnen uitoefenen om zo de effectiviteit van prestatiebeoordeling te kunnen verbeteren. Daartoe worden drie brede onderzoeksdoelstellingen geformuleerd die behandeld werden doorheen de verschillende studies in dit doctoraatsproefschrift. Een eerste

onderzoeksdoelstelling betreft het onderzoeken of het teken van feedback (positief of negatief) korte-termijn emoties en cognitieve reacties op een gelijkaardige manier beïnvloedt in verschillende contexten. Een tweede onderzoeksdoelstelling is nagaan of emoties kunnen optreden als mediërende mechanismen in de relatie tussen feedback en attitudes, intenties en gedrag. Tenslotte behelst een derde onderzoeksdoelstelling het onderzoeken van drie verschillende situationele factoren (namelijk, interactionele en procedurele rechtvaardigheid en relatiekwaliteit) die relatief eenvoudig te beïnvloeden zijn door organisaties. Door hun potentieel om de relatie tussen feedback en feedbackreacties te beïnvloeden kunnen ze mogelijk ook deze feedbackreacties verbeteren. Een beter inzicht in deze situationele factoren is niet alleen belangrijk vanuit theoretisch oogpunt, maar is ook cruciaal voor de praktijk. Kennis over welke factoren een invloed kunnen uitoefenen op feedbackreacties kan organisaties helpen bij het verbeteren en optimaliseren van feedbackprocessen om zo negatieve en dysfunctionele gevolgen voor de organisatie of feedbackgever te vermijden. Deze drie onderzoeksdoelstellingen worden onderzocht in vijf empirische hoofdstukken, die in wat volgt kort besproken worden.

STUDIES IN DIT DOCTORAATSPROEFSCHRIFT

In het eerste empirische hoofdstuk (Hoofdstuk 2) wordt gekeken naar de verwachtingen die mensen hebben over hun eigen reacties na het krijgen van feedback, en of deze reacties gemodereerd worden door interactionele rechtvaardigheid. In deze studie baseren we ons op de recente literatuur over ‘affectieve voorspellingen’ om na te gaan in welke mate mensen in staat zijn accurate voorspellingen te doen met betrekking tot hun emoties en reacties na het krijgen van feedback. De algemene veronderstelling in deze literatuur is dat mensen niet goed zijn in het accuraat voorspellen van hun eigen emoties (voor reviews, zie Gilbert, Driver-Linn, & Wilson, 2002; Wilson & Gilbert, 2003). Studies tonen aan dat mensen verwachten dat ze zich slechter gaan voelen na een negatieve gebeurtenis dan dat ze zich uiteindelijk voelen, en dat ze verwachten dat ze zich beter gaan voelen na een positieve gebeurtenis dan dat ze zich uiteindelijk voelen (e.g., Gilbert, Morewedge, Risen, & Wilson, 2004).

Deze ‘voorspellingsfout’ kan ernstige gevolgen hebben, aangezien het mensen kan aanzetten tot het nemen van verkeerde beslissingen over belangrijke levenskeuzes (Buehler & McFarland, 2001) of het nastreven van verkeerde doelen (Greitemeyer, 2009). Omdat de gevolgen van zo’n voorspellingsfout nadelig en zelfs schadelijk kunnen zijn, is het belangrijk om factoren te identificeren die deze fout kunnen beïnvloeden om ze op deze manier te kunnen beheersen. Om deze redenen onderzoeken we in deze studie of kandidaten in de televisieshow ‘Idool’ accuraat kunnen voorspellen hoe ze zich zullen voelen na een positieve versus een negatieve beslissing van de jury over hun verdere deelname aan de wedstrijd, en of een interactioneel rechtvaardige behandeling deze relatie kan modereren. De resultaten van deze studie bevestigen in de eerste plaats de voorspellingsfout: zoals verwacht voelden kandidaten die niet door mochten naar de volgende ronde (‘verliezers’) zich minder slecht dan verwacht, terwijl kandidaten die wel door mochten (‘winnaars’) zich minder goed voelden dan verwacht. In de tweede plaats vinden we in deze studie de verwachte modererende invloed van interactionele rechtvaardigheid: een rechtvaardige behandeling zorgde voor een grotere voorspellingsfout voor ‘verliezers’ en een kleinere fout voor ‘winnaars’. Met andere woorden: zowel ‘verliezers’ als ‘winnaars’ voelden zich gelukkiger of minder ongelukkig wanneer ze rechtvaardig behandeld werden door de jury. Tenslotte vinden we dat dit effect voor ‘winnaars’ nog versterkt werd voor kandidaten die veel belang hechtten aan hun zelfbeeld als artiest en aan deelname aan de wedstrijd. Dit effect werd niet gevonden voor ‘verliezers’. De belangrijkste implicatie van deze studie is dat de perceptie van een rechtvaardige behandeling een belangrijke rol speelt bij het maken van accurate voorspellingen over eigen emoties. Deze kennis kan beleidsmakers ertoe aanzetten en helpen om meer aandacht te besteden aan de interpersoonlijke behandeling van individuen om op die manier de voorspellingsfouten te verminderen.

In Hoofdstuk 3 wordt nagegaan hoe de invloed van procedurele rechtvaardigheidspercepties in de context van prestatiebeoordeling gerelateerd is aan twee primaire cognitieve feedbackreacties, namelijk feedbackaanvaarding en feedbackbruikbaarheid. Daarnaast wordt in twee studies de mediërende en modererende invloed van relatiekwaliteit op deze relatie onderzocht. Eerder

onderzoek toonde aan dat twee principes cruciaal zijn voor het verbeteren van feedbackreacties in de context van prestatiebeoordeling: in de eerste plaats een goede relatie met de feedbackgever (meestal is dit de leidinggevende) (e.g., Snyder, Williams, & Cashman, 1984), in de tweede plaats een rechtvaardige behandeling (e.g., Liden, Sparrowe, & Wayne, 1997). Hoewel er consensus is over het feit dat beide factoren belangrijk zijn bij het tot stand komen van feedbackreacties, was tot nog toe veel minder geweten over de specifieke wisselwerking tussen beide factoren bij het bepalen van feedbackreacties. In dit hoofdstuk worden twee studies voorgesteld die meer duidelijkheid trachten te scheppen over deze kwestie door het toetsen van een mediatie- en moderatiehypothese met betrekking tot deze variabelen. In de eerste studie worden werknemers uit een technologiebedrijf bevraagd, in de tweede studie werknemers uit een call center. De resultaten in beide veldstudies zijn gelijklopend: we vinden evidentie voor een (partieel) gemedieerde relatie tussen procedurele rechtvaardigheid en feedbackreacties door relatiekwaliteit, zoals ook werd verwacht op basis van andere modellen. Daarnaast vinden beide studies ook evidentie voor een gemodereerd model: om feedback als bruikbaar en nuttig te beschouwen is het nodig dat werknemers het gevoel hebben procedureel rechtvaardig behandeld te worden, zeker wanneer de relatiekwaliteit met de leidinggevende laag is. Met andere woorden, dit resultaat toont aan dat een hoge mate van procedurele rechtvaardigheid kan compenseren voor een slechte relatie met de leidinggevende. Het feit dat we deze resultaten vinden in twee verschillende veldstudies, gebruikmakend van twee verschillende prestatiebeoordelingsmethoden en operationalisaties van de variabelen, toont de robuustheid en de veralgemeenbaarheid van onze bevindingen aan.

In Hoofdstuk 4 wordt een quasi-experimentele studie voorgesteld die kijkt naar hoe bepaalde karakteristieken van de feedbackboodschap emotionele reacties kunnen beïnvloeden in de eerste plaats, en in de tweede plaats gedrag 15 maanden later. In dit hoofdstuk worden dus niet enkel emoties als onmiddellijke feedbackreactie onderzocht, maar wordt ook gekeken naar de gedragingen die volgen op zulke emoties in de context van management onderwijs. Deze studie draagt bij tot de literatuur van feedbackreacties door het onderzoeken van de invloed van procedurele informatie (informatie met betrekking tot de procedures

die gebruikt worden om de feedbackscore te bepalen) en informatiespecificiteit (de hoeveelheid informatie die studenten krijgen met betrekking tot hun feedbackscore) op onmiddellijke positieve en negatieve emoties en op zelf-gerapporteerd gedrag meer dan een jaar later. In deze studie verwachten we dat zowel procedurele informatie als informatiespecificiteit modererend zullen optreden in de relatie tussen feedback en emoties, en dat deze emoties vervolgens zullen leiden tot het deelnemen aan activiteiten om de eigen vaardigheden te ontwikkelen. Een eerste bevinding in deze studie is zoals verwacht dat studenten positiever reageren op positieve feedback, en dat dit positieve effect wordt versterkt wanneer de hoeveelheid procedurele informatie die ze krijgen, hoog is. Dit resultaat toont aan dat feedbackontvangers positiever reageren op een hoge feedbackscore wanneer ze op de hoogte zijn van de procedures die gebruikt werden om te score te bepalen. Ten tweede wordt gevonden dat er negatiever gereageerd wordt op negatieve feedback, maar dit effect is minder uitgesproken wanneer de specificiteit van de informatie die ze krijgen, laag is. Deze bevinding is tegengesteld aan wat we verwachtten, namelijk dat negatieve feedbackreacties zouden verminderen bij een hoge mate van informatiespecificiteit. Een mogelijke verklaring hiervoor zou kunnen zijn dat wanneer mensen weinig specifieke informatie krijgen, dit hen in staat stelt hun zelfbeeld te beschermen door hun slechte prestatie toe te schrijven aan externe oncontroleerbare factoren (Ilgen & Davis, 2000; Taylor, Fisher, & Ilgen, 1984). Kwalitatieve commentaar van de deelnemers bevestigen dit vermoeden. Tenslotte vinden we een positieve relatie tussen positieve feedbackreacties en deelname aan ontwikkelingsactiviteiten 15 maanden na het krijgen van de feedback. Deze bevinding is belangrijk en ondersteunt onze oorspronkelijke assumptie dat initiële feedbackreacties goede voorspellers kunnen zijn van latere ontwikkelingsactiviteiten, zelfs over ruime tijdsperiodes.

Het vierde empirische hoofdstuk van dit doctoraat (Hoofdstuk 5) gaat dieper in op de modererende effecten van interactionele rechtvaardigheid door het onderzoeken van de rol van interpersoonlijke behandeling in de relatie tussen de feedbackboodschap en tevredenheid met de feedback. Deze studie wordt ondernomen bij dezelfde steekproef als deze uit Hoofdstuk 2, namelijk de kandidaten van ‘Idool’, en wordt gekaderd in de literatuur rond reacties van

sollicitanten. In deze studie wordt meer bepaald een gemodereerd mediatiemodel getoetst waarin de invloed wordt nagegaan van de interactie tussen feedback en interpersoonlijke behandeling op aanbevelingsintenties en aanbevelingsgedrag, door het ervaren van feedbacktevredenheid. De resultaten van deze studie zijn volledig in lijn met de verwachtingen: ten eerste tonen we aan dat de interactie tussen feedback en interpersoonlijke behandeling een effect heeft op feedbacktevredenheid, zelfs als er gecontroleerd wordt voor de feedbackbeslissing (‘doorgaan’ of ‘niet doorgaan’). Wanneer kandidaten rechtvaardig behandeld worden leidt een positieve feedbackboodschap tot meer tevredenheid dan een negatieve feedbackboodschap. Wanneer kandidaten onrechtvaardig behandeld worden is de mate van (on)tevredenheid hetzelfde, ongeacht of de feedbackboodschap positief of negatief is. Dit impliceert dat het type feedback (negatief of positief) weinig uitmaakt voor de tevredenheid van een kandidaat wanneer de feedback op een onrechtvaardige en weinig respectvolle manier wordt gecommuniceerd. Met andere woorden, deze bevinding toont aan dat het rechtvaardig behandelen van kandidaten prioriteit zou moeten krijgen binnen organisaties: wanneer kandidaten slecht behandeld worden zullen ze ontevreden zijn, ongeacht het type feedback, en dit zal rechtstreekse gevolgen hebben voor de organisatie. Ten tweede vinden we dat de interactie tussen feedback en de behandeling onrechtstreeks leidde tot aanbevelingsintenties en –gedragingen door het ervaren van feedback(on)tevredenheid. Dit toont aan dat de manier waarop kandidaten behandeld worden en de resulterende tevredenheid in een selectiecontext belangrijk is, aangezien deze een invloed hebben op de mate waarin kandidaten de organisatie willen aanbevelen aan anderen, en de mate waarin ze dit effectief gedaan hebben zes maanden later. Deze bevindingen zijn bemoedigend voor organisaties, aangezien ze aantonen dat niet alles te verklaren is door de perceptie van kandidaten, maar dat ook de echte behandeling en de echte feedbackboodschap belangrijk zijn. Voor organisaties lijkt het dus cruciaal om het selectieproces op een correcte manier te laten verlopen, en om kandidaten ten allen tijde op een respectvolle manier te behandelen, teneinde negatieve reacties bij kandidaten te vermijden en positieve reacties te stimuleren.

Hoofdstuk 6 tenslotte presenteert een scenariostudie bij werknemers van een zorginstelling. In deze studie wordt onderzocht wat de effecten zijn van feedback gericht naar een collega op iemands eigen emoties, attitudes en intenties. Onderzoek heeft aangetoond dat het prijzen of bekritiseren van werknemers niet enkel een invloed kan hebben op de feedbackontvanger, maar ook op zijn/haar collega's. In deze studie veronderstellen we dat wanneer een individu hoort dat een collega positieve of negatieve feedback krijgt, dit kan leiden tot positieve of negatieve emoties, attitudes en intenties bij de persoon die getuige is van de feedback. Steunend op sociale vergelijkingstheorie verwachten we dat de kwaliteit van de relatie tussen beide collega's een cruciale factor is bij het tot stand komen van deze reacties, en bij het bepalen of deze reacties positief of negatief zullen zijn. In deze studie worden drie gemodereerde mediatiemodellen getoetst waarin de invloed wordt nagegaan van de interactie tussen erkenning en relatiekwaliteit op (1) intenties tot het stellen van interpersoonlijk extra-rolgedrag door het ervaren van positief affect, (2) intenties tot het stellen van interpersoonlijk contraproductief gedrag door het ervaren van negatief affect, en (3) affectieve organisationele betrokkenheid door het ervaren van positief affect. De resultaten van deze studie tonen aan dat erkenning voor werknemers niet enkel positieve gevolgen kan hebben, maar ook negatieve. Een eerste bevinding is dat negatieve emoties in deze context geassocieerd zijn met een verhoogde intentie om interpersoonlijk contraproductief gedrag te stellen. Ten tweede zijn positieve emoties geassocieerd met verhoogde affectieve organisationele betrokkenheid. Daarnaast werd ook een onverwachte associatie gevonden tussen negatieve emoties en lagere affectieve organisationele betrokkenheid. Een mogelijke verklaring hiervoor kan zijn dat affectieve organisationele betrokkenheid de affectieve reacties en betrokkenheid ten aanzien van de organisatie representeert, en dat werknemers die negatieve emoties ervaren na een werkgerelateerde gebeurtenis (zoals bijvoorbeeld vernemen dat een niet-geliefde collega positieve erkenning krijgt), een lager gevoel van affectieve organisationele betrokkenheid ervaren (zie ook Thoresen, Kaplan, Barsky, Warren, & De Chermont, 2003). Verder onderzoek moet uitwijzen of dit inderdaad het geval is. Voorts tonen de bevindingen aan dat de kwaliteit van de relatie tussen beide collega's cruciaal is bij het tot stand komen

van reacties. Positieve erkenning voor een collega leidt in deze studie tot positieve emoties als de relatie goed is, maar tot negatieve emoties als de relatie slecht is. Omgekeerd leidt negatieve erkenning voor een collega tot positieve emoties als de relatie slecht is, maar tot negatieve emoties als de relatie goed is. Verder toont deze studie aan dat emoties de onderliggende mechanismen zijn die verantwoordelijk zijn voor de effecten in deze studie: de intentie om interpersoonlijk contraproductief gedrag te stellen wordt indirect beïnvloed door de ervaring van negatieve emoties, terwijl affectieve organisationele betrokkenheid indirect beïnvloed wordt door de ervaring van positieve emoties. Tenslotte vinden we geen effect van de interactie op intenties tot het stellen van interpersoonlijk extra-rolgedrag door de ervaring van positieve of negatieve emoties. Mogelijk is dit te verklaren door het feit dat erkenning vooral gebaseerd is op taakresultaten en karakteristieken, en dat dit niet zal leiden tot extra-rolgedrag ten aanzien van anderen in de organisatie.

ALGEMENE CONCLUSIE

Samengevat leveren de resultaten uit de zes studies in dit doctoraatsproefschrift empirische evidentie voor de onderzoeksvragen en -doelstellingen die bij het begin van dit proefschrift werden voorgesteld.

Met betrekking tot de eerste doelstelling bevestigen de studies de algemene assumptie dat positieve feedback over het algemeen leidt tot positieve reacties (bevestigd in de zes studies), terwijl negatieve feedback meestal leidt tot negatieve reacties (bevestigd in vier van de zes studies), bevindingen die in lijn zijn met de resultaten uit andere studies (e.g., Belschak & den Hartog, 2009; Kluger, Lewinsohn, & Aiello, 1994; Podsakoff & Farh, 1989). Deze bevindingen werden gevonden in vijf verschillende contexten, met verschillende operationalisaties van de onafhankelijke en afhankelijke variabelen, wat bijdraagt tot de veralgemeenbaarheid van de resultaten naar andere contexten en andere doelgroepen.

De tweede doelstelling hield de vraag in of emoties kunnen optreden als mediërende mechanismen in de relatie tussen feedback en attitudes, intenties en gedrag. Deze doelstelling werd onderzocht in drie studies (Hoofdstukken 4, 5 en 6) en drie verschillende contexten (management onderwijs, Idool, en een

zorginstelling). Samengevat werd in de drie studies evidentie gevonden dat feedbackreacties vaak indirect zijn en worden gemedieerd door emoties. Meer specifiek vonden we dat bepaalde attitudes (affectieve organisationele betrokkenheid), intenties (intenties tot het stellen van interpersoonlijk contraproductief gedrag, aanbevelingsintenties) en gedragingen (deelname aan ontwikkelingsactiviteiten en aanbevelingsgedrag) vormgegeven werden door de ervaring van positieve en/of negatieve emoties en tevredenheid. Hoewel niet alle vooropgestelde relaties bevestigd werden (zo werd geen relatie gevonden tussen negatief affect en deelname aan ontwikkelingsactiviteiten en tussen positief affect en interpersoonlijk extra-rolgedrag), tonen deze bevindingen toch ontegensprekelijk het bestaan aan van emoties als mediërende mechanismen in de relatie tussen feedback en feedbackreacties.

De derde en laatste onderzoeksdoelstelling keek naar drie situationele moderatoren die de relatie tussen feedback en feedbackreacties kunnen beïnvloeden, namelijk interactionele en procedurele rechtvaardigheid en relatiekwaliteit. Ook hier werd overtuigende evidentie gevonden voor de modererende invloed van deze variabelen. Zo vonden we in twee van drie studies dat interactionele rechtvaardigheid negatieve feedbackreacties verminderde en positieve reacties stimuleerde, bevindingen die in lijn lagen met de verwachtingen. De modererende rol van procedurele rechtvaardigheid werd onderzocht in één studie: hier vonden we dat procedurele rechtvaardigheid een modererend effect had op positieve feedbackreacties maar niet op negatieve reacties. Tenslotte werd de modererende invloed van relatiekwaliteit onderzocht en gevonden in drie verschillende studies en contexten.

Theoretisch draagt dit doctoraat in de eerste plaats bij tot een beter begrip van de bestaande feedbackprocesmodellen door aandacht te besteden aan de mediërende mechanismen en modererende factoren die een invloed kunnen hebben op de relatie tussen feedback en feedbackreacties. Onze resultaten kunnen een aanzet zijn om de huidige feedbackmodellen (e.g., Elicker, Levy, & Hall, 2006; Roberson & Stewart, 2006) te verfijnen. Een tweede theoretische bijdrage betreft het onderzoeken van emoties als mediërende mechanismen in plaats van modererende factoren zoals tot nog toe werd gedaan (e.g., Lam, Yik, & Schaubroeck, 2002). Het is een belangrijke bijdrage van dit doctoraat dat

aangetoond werd dat emoties de relatie mediëren tussen feedback en attitudes, intenties en gedrag. Tenslotte draagt dit doctoraat bij tot het dichten van de kloof tussen wetenschap en praktijk met betrekking tot feedbackinterventies. De bevindingen die hier werden beschreven kunnen leiden tot een beter begrip van hoe organisaties feedbackinterventies kunnen ontwikkelen op basis van theorie. Vanuit een praktisch perspectief is het ontwikkelen en toepassen van solide feedbackinterventies een grote uitdaging voor organisaties en managers. De empirische studies in dit doctoraat bieden inzichten met betrekking tot de mediërende rol van emoties en modererende rol van situationele factoren in de relatie tussen feedback en feedback reacties die organisaties kunnen helpen bij het vormgeven van feedback interventies in verschillende contexten.

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